



Statlig program for  
forurensningsovervåking

# Rapport 680B/96

TA 1394/1996

Oppdragsgiver

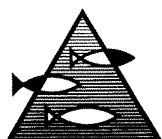
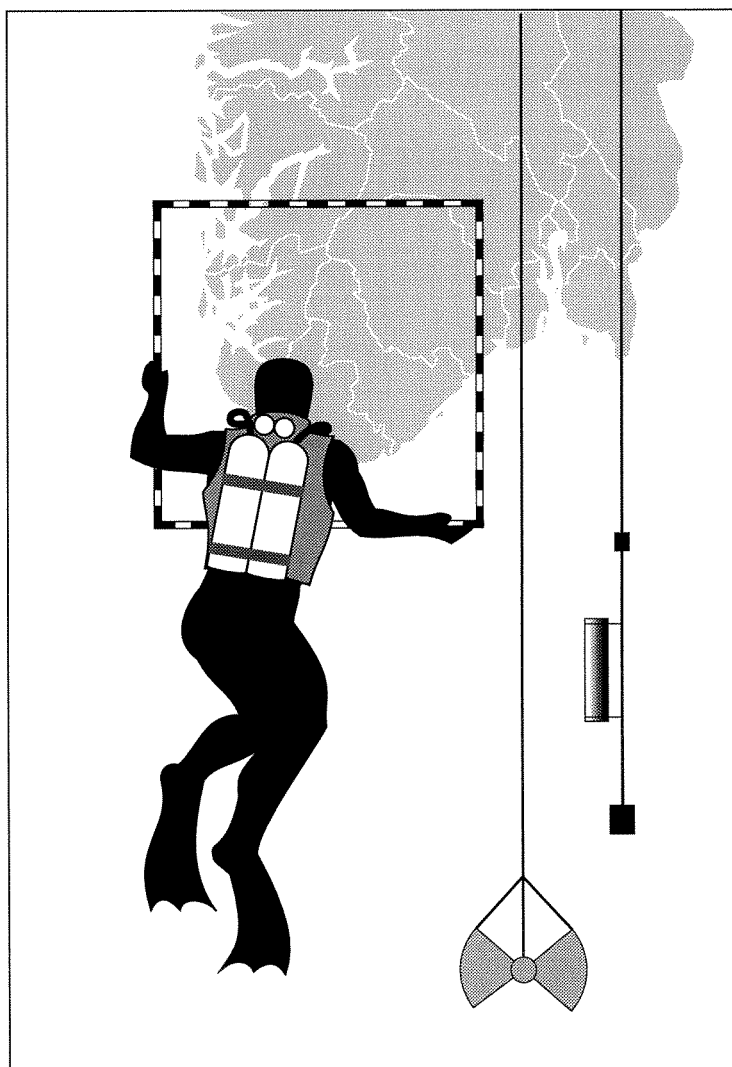
Statens forurensningstilsyn

Utførende institusjoner NIVA, HFF, HI


## Langtidsover- våking av miljø- kvaliteten i kystområdene av Norge

Årsrapport 1995

VEDLEGGSRAPPORT 1995



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Sammendrag (kopi fra hovedrapporten)

Kystovervåkningsprogrammet skal gi en oversikt over miljøtilstanden m.h.t. næringsalter og effektene av disse på alge- og dyresamfunn fra svenskegrensen til Fedje. Utvikling over tid overvåkes innen fagdisiplinene hydrografi, hydrokjemii, planteplankton, bløtbunnsfauna og hardbunns-flora og fauna. Spesielt for 1995 som for 1990 til 1993 var uvanlig varme vintre. Vinteren 1994 var tilnærmet normal. I 1995 var de hydrofysiske og -kjemiske forholdene meget spesielle. Storfloam på kontinentet i mars og storfloam på Østlandet i juni sammen med stor utstrømming fra Kattegat/Østersjøen, resulterte i økt innslag av brakkvann. Tilførslene av næringsalter var betydelige i disse periodene. Nivåene av næringsalter økte fra 1991 til 1994 i de øvre vannlag, men avtok noe i 1995. Flomvannet fra Tyskebukta med høye nitrat- og silikatforbindelser og senere flomvann fra Østlandet, kunne følges langs kysten, men ikke helt til Lista. Forekomst av organismer på bløt- og hardbunn viste en øst-vest gradient, med økende artsantall og diversitet mot vest. Algesamfunnene i 1995 var lik året 1993 og rikere enn i 1994. Dette gjaldt nesten for alle indekser. Tilvekst av tareskog i 1995 gjør stasjonene mer homogene. Et gradvis økende C/N forhold i stortare ble også observert fra øst mot vest. Årsvariasjonen i C/N forholdet samsvarer godt med nitrogen i vannmassene om vinteren/vår.

Fire norske emneord 1. Langtidsovervåking 2. Trofiuivikling 3. Norskekysten 4. Biologi	Fire engelske emneord 1. Long-term monitoring 2. Eutrophication 3. Norwegian Coast 4. Biology
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Are Pedersen  
Prosjektleder

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**Langtidsovervåking av miljøkvaliteten i  
kystområdene av Norge.**

Årsrapport 1995

Vedleggsrapport

## Forord

I regi av Statens Forurensningstilsyn (SFT) startet Norsk institutt for vannforskning (NIVA) i 1990 et program for langtidsovervåking av trofiutviklingen langs kysten av Sør-Norge (Kystovervåkningsprogrammet). Programmet omhandler hydrokjemiske og biologiske undersøkelser (hard- og bløtbunn). Den hydrokjemiske delen av programmet blir utført i samarbeid med Havforskningsinstituttet i Bergen (HI) og Havforskningsinstituttets forskningsstasjon Flødevigen (HFF). Begge de biologiske undersøkelsene utføres av NIVA. NIVA har også hovedansvaret for gjennomføring av prosjektet og utarbeidelse av rapportene.

Undersøkelsen skal gjentas årlig i en periode på 10- 20 år, og har som formål å fange opp langtidsutviklinger langs den ytre kyst av Sør-Norge. Undersøkelsene er koordinert med andre norske og internasjonale programmer bl.a. innenfor Nordisk Ministerråd og Oslo-Pariskommisjonen (OSPARCOM). Programmet skal også jevnlig vurderes av eksterne faggrupper basert på årlige rapporter; datarapporter og en årsrapport. I tillegg skal det hvert femte år utarbeides en samlerapport med grundigere vurderinger av resultatene fra den foregående perioden. Den første samlerapporten kom ut høsten 1995 (Pedersen et al.1995a,b).

Omfanget av hardbunnsundersøkelsene har til og med 1994, vært inndelt i to kategorier - intensivår og normalår. Under intensiv årene 1990 og 1991, ble alle stasjoner undersøkt, mens under normalårene 1992-94, ble bare 3 stasjoner innen de 4 hovedområdene (Ytre Oslofjord, Arendal, Lista og Sotra) undersøkt. I 1995 gikk en over til å undersøke 4 stasjoner pr. hovedområde. Disse stasjonene vil bli undersøkt hvert år. Det blir ingen inndeling i intensiv- og normalår fra 1995 av. Dette er gjort ut fra statistiske betraktninger av det innsamlete materiale, samt på anbefaling fra den internasjonale ekspertgruppen som er tilknyttet prosjektet. Bløtbunnsdelen av prosjektet omfatter området øst for Egersund, mens hydrografidelen av prosjektet konsentreres om områdene Færder Fyr, Jomfruland, Arendal og Lista.

Datarapporter fra hvert av de tre delprosjektene utgis årlig. Primærdataene er lagret i databaser på NIVA.

Kontaktpersoner i SFT har fra 1994 av, vært John Rune Selvik.

Følgende personer har forfattet rapportene:

- Hydrografi / Hydrokjemi / Planteplankton: Jan Magnusson og Torbjørn Johnsen NIVA samt Einar Dahl HFF og Jan Aure HI.
- Bløtbunn: Brage Rygg
- Hardbunn: Norman Green, Frithjof Moy, Are Pedersen og Mats Walday

Oslo, 4/11- 1996

Are Pedersen

# Innhold

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# Vedlegg A. Hydrografi/hydrokjemiplanteplankton

**Tabell 1.** Karboninnhold i registrerte arter/grupper.

Art	C-innhold (pg C/celle)	Art	C-innhold (pg C/celle)	Art	C-innhold (pg C/celle)
CRYPTOPHYCEAE		Ubest. athecate dinoflagellater 6-9 µm	12	Rhizosolenia delicatula	260
cf. Hemiselmis spp.	1	" " 9-14 µm	56	R. fragilissima	220
Leucocryptos marina	72	" " 14-20 µm	165	R. hebelata f. semispina	420
cf. Plagioselmis sp.	10	" " 20-30 µm	470	R. imbricata var. shirubsolei	260
cf. Teleaulax acuta	58	" " > 30 µm	3.500	R. seligera	750
Ubestemt cryptophyce 6-9 µm	24	Ubest. thecate dinoflagellater, 9-14 µm	66	Skeletonema costatum	13
" " 9-14 µm	60	" " 14-20 µm	140	Thalassionema mitschoides	50
DINOPHYCEAE		" " 20-30 µm	555	Thalassiosira "gravida"	750
Amphidinium sp. 26-40 µm	520	" " >30 µm	4.100	T. nordenskiöldii	80
Ceratium bucephalum	6.500	PRYMNESIOPHYCEAE		T. spp.	200
C. lurca	6.500	Anthosphaera sp.	50	Ubestemt centrisk diatomeer 4-9 µm	30
C. fusus	4.000	Chrysochromulina spp. <3 µm	4	" " 9-14 µm	30
C. horridum	5.000	Chrysochromulina spp. 3-6 µm	8	" " 14-20 µm	80
C. lineatum	925	Chrysochromulina spp. 6-9 µm	24	" " 20-30 µm	170
C. longipes	5.000	Emiliania huxleyi	25	" " <30 µm	430
C. macroceros	6.500	Ophiaster hydroideus	50	Ubest. pennate diatomeer 6-9 µm	7
C. tripos	6.500	Phaeocystis sp.	7	" " 9-14 µm	15
Chadopyxis claytonii	490	Ubest. coccolithophoride	50	" " 14-20 µm	22
D. acuminata	700	CHRYSOPHYCEAE		" " 20-30 µm	45
D. acuta	1.400	cf. Apedinella spinifera	58	" " > 30 µm	100
D. norvegica	1.000	Calycomonas gracilis	5	EUGLENOPHYCEAE	
D. rotundata	900	C. ovalis	5	Eutreptia/ Eutreptiella 30-50 µm	140
Ebria tripartita	346	Dicryocha fibula	195	" " 100 µm	400
Entomosigma peiridinoides	42	D. speculum	100	PRASINOPHYCEAE	
Gonyaulax grindleyi	2.150	Dinobryon petiolatum	3	P. spp. 3-6 µm	8
Gymnodinium elongatum	180	Dinobryon sp.	10	P. spp. 6-9 µm	24
Gyrodinium aureolum	475	Pseudopedinella sp.	49	UKLASSIFISERT	
G. estuariale	30	BACILLARIOPHYCEAE		Flagellater med inakt flagell 1,5-3 µm	3
G. spp. 60-80 µm	1.000	Ceratoulina pelagica	560	" " 3-6 µm	8
Heterocapsa triquetra	100	Chaetoceros affinis	60	" " 6-9 µm	24
H. niei	180	C. calcitrans	8	" " 9-14 µm	60
Katodinium glaucum	1.800	C. compressus	43	" " 14-20 µm	282
K. rotundatum	60	C. constictus	250	Uten flageller 1,5-3 µm	3
cf. Oxvrrhis marina	300	C. curvisetus	250	" " 3-6 µm	8
Proocentrum baileicum	105	C. danicus	145	" " 6-9 µm	24
P. lima	150	C. debilis	145	ZOOFLAGELLATER	
P. micans	306	C. decipiens	430	Telonema subtilis	7
P. minimum	105	C. laciniosus	45	KRAGEFLAGELLATER	
Protoperidinium bipes	107	C. socialis	10	Ubestemte kragflagellater 3,6 µm	8
DINOPHYCEAE (forts.)		C. subsecundus	145	" " 6-9 µm	24
P. brevipes	1.000	C. spp. - hyalochaete	10	ZOOFLAGELLATER	
P. curtipes/grassipes	12.000	C. spp.-phaeoceros	145	Telonema subtilis	7
P. depressum	22.750	Coccolidiscus sp. 40-90 µm	1.900	KRAGEFLAGELLATER	
P. divergens	11.700	Cylindrotheca closterium	10	Ubestemte kragflagellater 3,6 µm	8
P. grani	3.000	Goniococcus septentrionalis	14	" " 6-9 µm	24
P. pallidum	2.500	Guinardia flaccida	5.000	ZOOFLAGELLATER	
P. pellucidum	4.950	Lauderia annulata	890	Telonema subtilis	7
P. steinii	1.950	Leptocylindrus danicus	42	KRAGEFLAGELLATER	
P. spp.	700	Proboscia alata	420	Ubestemte kragflagellater 3,6 µm	8
Scrippsiella trochoidea	1.000	Pseudo-nitzschia "delicatissima"	70	" " 6-9 µm	16
Torodinium robustum	1.800	P. pungens	70		
		P. seriata	70		

**Tabell 2.** Resultater av algetellinger fra integrerte vannprøver (0-30 meter) fra Arendal st.2. Tallene angir celler/liter.

ARENDALE - 1995	19/01/95	07/02/95	06/03/95	20/03/95	03/04/95	18/04/95	08/05/95	06/06/95
	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m
CRYPTOPHYCEAE								
cf. Hemiselmis spp.				11.500				23.100
Leucocryptos marina	800	400	3.000	11.500			11.500	46.100
cf. Plagioselmis sp.				103.800	207.700	103.800	507.600	138.400
cf. Teleaulax acuta			57.700	69.200	69.200	34.600	623.000	46.100
Ubestet cryptophyce 6-9 µm	34.600	14.400	150.000					
" " 9-14 µm					34.600		23.100	
DINOPHYCEAE								
Amphidinium sp. 26-40 µm								
Ceratium bucephalum	20							
Ceratium furca	60	60	20		80	40		
C. fusus					20			40
C. horridum	40	20						
C. lineatum								
C. longipes					20		80	160
C. macroceros								
C. tripos	20	20					20	40
Cladopyxis claytonii								100
Dinophysis acuminata				20				380
D. acuta	20		20	60				
D. norvegica				60		20	40	260
D. rotundata						20		20
Ebria tripartita								
Entomosigma peridinioides			173.100			100	11.500	46.100
Gonyaulax grindleyi								
Gymnodinium elongatum								
Gyrodinium aureolum								
G. estuariale								
Gyrodinium spp. 30-80 µm								
Heterocapsa triquetra								4.400
H. niei								
Katodinium glaucum						200		11.800
K. rotundatum						11.500	80.800	
cf. Oxvyrhis marina				11.500				
Prorocentrum balticum								
P. lima						100		
P. micans	100							
P. minimum								34.600
Protoperidinium bipes				200		200		

ARENDALE - 1995	19/01/95	07/02/95	06/03/95	20/03/95	03/04/95	18/04/95	08/05/95	06/06/95
	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m
DINOPHYCEAE (forts.)								
P. brevipes								100
P. curtipes/crassipes								
P. depressum							100	100
P. divergens								
P. granii								
P. pallidum								
P. pellucidum								
P. steinii								100
P. spp.								
Scrippsiella trochoidea				1.500		100		
Torodinium robustum						200		
Ubest. athecate dinoflagellater 6-9 µm	2.900	2.900	5.800	11.500	11.500	11.500	69.200	34.600
" " " 9-14 µm	20.300	11.600	46.400	46.100	23.100	11.500	39.000	103.800
" " " 14-20 µm	5.800	100	2.200			4.400	1.500	49.100
" " " 20-30 µm	200	100	700			3.700	200	700
" " " > 30 µm	200			700		200		1.500
Ubest. thecate dinoflagellater 9-14 µm							11.500	
" " " 14-20 µm		100				1.400	700	9.600
" " " 20-30 µm			400	700	200			700
" " " >30 µm				700				100
PRYMNESIOPHYCEAE								
Anthosphaera sp.								11.500
Chrysochromulina spp. <3 µm								
Chrysochromulina spp. 3-6 µm							69.200	115.400
Chrysochromulina spp. 6-9 µm								323.000
Emiliania huxleyi								92.300
Ophiaster hydroideus								
Phaeocystis sp.				646.100	1.199.800	69.200		
Ubest. coccolithophoride								
CHRYSOPHYCEAE								
cf. Apedinella spinifera				11.500				
Calycomonas gracilis								11.500
C. ovalis								
Dictyocha fibula								
D. speculum								
Dinobryon petiolatum							23.100	
D. sp.							11.500	
Pseudopedinella sp.								69.200

Tabell 2 forts.

ARENDA - 1995	19/01/95	07/02/95	06/03/95	20/03/95	03/04/95	18/04/95	08/05/95	06/06/95
	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m
BACILLARIOPHYCEAE								
Cerataulina pelagica								
Chaetoceros affinis				1.500				
C. calcitrans								
C. compressus								
C. constrictus								
C. curvisetus								
C. danicus			100		200			
C. debilis				4.400	31.000			
C. decipiens					400			
C. lacinosus					3.800			
C. socialis					2.053.500			
C. subsecundus				3.000	11.000			
C. spp. - hyalochaete				300.000	7.400			
C. spp. - phaeoceros								
Coscinodiscus sp. 40-90 µm	100		400	3.000				
Cylindrotheca closterium	100	200	14.500	1.500	700			
Gonioceros septentrionalis					11.500			
Guinardia flaccida		*						
Lauderia annulata					800			
Leptocylindrus danicus	100			46.100				
Proboscia alata								
Pseudonitzschia "delicatissima"	200	100	13.300	369.200	276.900		100	7.400
P. pungens								
P. seriata					400			
Rhizosolenia delicatula				700				
R. fragilissima								
R. hebetata f. semispina				3.000	17.700			
R. imbricata var. shrubsolei								
R. setigera								
Skeletonema costatum	200		127.100	2.307.400	300.000			369.200
Thalassionema nitzschioides		200	100	1.500	800			
Thalassiosira "gravida"			300	400				
T. nordenskiöldii				2.200				
T. sp. 10-12 µm			400		11.500			
T. spp. 15-20 µm			1.400		92.300			

ARENDA - 1995	19/01/95	07/02/95	06/03/95	20/03/95	03/04/95	18/04/95	08/05/95	06/06/95
	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m
BACILLARIOPHYCEAE (forts.)								
Ubestemt centrisk diatomeer 4-9 µm	2.900			11.500				
" " " 9-14 µm		2.900	11.800					
" " " 14-20 µm		100						
" " " 20-30 µm	100			5.900				
" " " > 30 µm				200				
Ubest. pennate diatomeer 6-9 µm	2.900		11.500					
" " " 9-14 µm			11.500	11.500				
" " " 14-20 µm	200	200	1.500					
" " " 20-30 µm		100						
" " " > 30 µm	100	100	200	1.500	2.200			
EUGLENOPHYCEAE								
Eutreptia/ Eutreptiella 30-50 µm			200				200	
" " " 80-110 µm			400	3.700				
PRASINOPHYCEAE								
Pyramimonas spp. 3-6 µm							230.700	
Pyramimonas spp. 6-9 µm			34.600				115.400	46.100
UKLASSIFISERT								
Flagellater med intakt flagell 1.5-3 µm			138.400	276.900	346.100	1.199.800	1.338.300	623.000
" " " 3-6 µm	34.600	23.100	150.000	138.400	1.222.900	2.838.100	1.384.400	1.476.700
" " " 6-9 µm	11.500	5.800	57.700		23.100	46.100	138.400	553.800
" " " 9-14 µm								
" " " 14-20 µm								
Celler uten flageller 1.5-3 µm	126.900	138.400	276.900	1.246.000	553.800	415.300	3.484.200	923.000
" " " 3-6 µm	173.100	57.700	150.000	484.600	461.500	161.500	853.700	738.400
" " " 6-9 µm	69.200	23.100	69.200	92.300	138.400	23.100	23.100	115.400
ZOOFLAGELLATER								
Telonema subtilis							346.100	
KRAGEFLAGELLATER								
Ubestemte kragflagellater 3-6 µm	2.900			115.400	276.900	69.200	300.000	92.300
" " " 6-10 µm	2.900			92.300	184.600	46.100		92.300



Tabell 2 forts.

ARENDA - 1995	28/06/95	10/07/95	08/08/95	21/08/95	11/09/95	18/09/95	23/10/95	20/11/95	18/12/95
	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m
CRYPTOPHYCEAE									
cf. Hemiselmis spp.	92.300	207.700	46.100	69.200				11.500	
Leucocryptos marina	11.500	184.600	23.100	34.600	23.100	23.100	34.600	11.500	
cf. Plagioselmis sp.	230.700	207.700	230.700	115.400	161.500	92.300	80.800	69.200	115.400
cf. Teleaulax acuta	92.300	300.000	11.500						
Ubestemt cryptophyce 6-9 µm		23.100			69.200	11.500			
" " 9-14 µm			11.500						
DINOPHYCEAE									
Amphidinium sp. 26-40 µm								700	
Ceratium bucephalum		160	290	160	40				
Ceratium furca	1.120	900	9.840	23.000	4.440	8.140	300	260	160
C. fuscum	840	3.020	380	380	80	220		20	
C. horridum	160	140							
C. lineatum	20	260						20	
C. longipes	400	260	60	80					
C. macroceros	20	260							
C. tripos	800	280	360	200	140	660	20	20	80
Cladopyxis claytonii									
Dinophysis acuminata	1.600	1.060	40	20	160	40	20	20	
D. acuta	20		140	40		40	40	40	20
D. norvegica	160	1.260	400	240	20	140			80
D. rotundata	80	60	20	100		120			
Ebria tripartita					200				
Entomosigma peridinioides	11.500	11.500	11.500	11.500	23.100	11.500			5.800
Gonyaulax grindleyi	100								
Gymnodinium elongatum	700	200	1.500		200			700	
Gyrodinium aureolum	1.500	4.200	300		600	98.100	300	600	
G. estuariale				23.100					
Gyrodinium spp. 30-80 µm	1.300			200	600	2.300	300	1.500	700
Heterocapsa triquetra	1.500		11.500				5.800	46.100	11.500
H. niei									
Katodinium glaucum	14.500	800	700	3.000	11.700	1.100		700	100
K. rotundatum		46.100	80.800	34.600	23.100	23.100			
cf. Oxryrhis marina									
Proocentrum balticum	5.900	11.500							
P. lima									
P. micans			480	1.000	760	2.640	180	320	
P. minimum			1.500						
Protoperdinium bipes			100						

ARENDA - 1995	28/06/95	10/07/95	08/08/95	21/08/95	11/09/95	18/09/95	23/10/95	20/11/95	18/12/95
	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m
DINOPHYCEAE (forts.)									
P. brevipes	200								
P. curtipes/crassipes				100		300			
P. depressum	100		100			200	100		
P. divergens				100	100				
P. granii	400								
P. pallidum				100					
P. pellucidum	200					200			
P. steinii		200		100					
P. spp.	200								
Scrippsiella trochoidea	5.200	400							
Torodinium robustum			700			100	100		
Ubest. athecate dinoflagellater 6-9 µm	34.500	46.200	69.200	69.200	69.200	34.600	11.500	57.700	11.500
" " 9-14 µm	103.700	126.800	23.000	80.700	69.100	92.200	80.700	46.100	17.400
" " 14-20 µm	32.200	69.100		11.500	14.500	700	3.700	5.700	3.700
" " 20-30 µm	5.900	11.500						1.400	700
" " >30 µm		600	100						
Ubest. thecate dinoflagellater 9-14 µm	11.500		700			11.500		11.500	
" " 14-20 µm	23.100	11.500	3.300	400	4.400	1.500	200	1.500	400
" " 20-30 µm	700	200	1.400			700		2.200	
" " >30 µm		400	200	100	100		100		600
PRYMNESIOPHYCEAE									
Anthosphaera sp.				11.500					
Chrysochromulina spp. <3 µm		1.150							
Chrysochromulina spp. 3-6 µm	150.000	69.200	276.900	69.200		11.500			
Chrysochromulina spp. 6-9 µm					23.100				
Emiliania huxleyi	242.300	1.753.600	369.200	300.000	300.000	184.600	46.100	5.800	11.500
Ophiaster hydroideus				11.500					
Phaeocystis sp.									
Ubest. coccolithophoride				23.100					
CHRYSOPHYCEAE									
cf. Apedinella spinifera					23.100				
Calycomonas gracilis	11.500					5.800			
C. ovalis	11.500		11.500	23.100		11.500			
Dictyocha fibula							300		11.500
D. speculum		200							
Dinobryon petiolatum	11.500								
D. sp.									
Pseudopedinella sp.						11.500			

Tabell 2 forts.

ARENDAL - 1995	28/06/95	10/07/95	08/08/95	21/08/95	11/09/95	18/09/95	23/10/95	20/11/95	18/12/95
	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m
BACILLARIOPHYCEAE									
Cerataulina pelagica	1.500				59.100	600	100		
Chaetoceros affinis			100		35.500	31.000			
C. calcitrans			69.200		23.100				
C. compressus					8.900	2.200			
C. constrictus						600			
C. curvisetus					3.000	1.400			
C. danicus									
C. debilis									
C. decipiens		1.500							
C. lacinosus									
C. socialis									
C. subsecundus									
C. spp. - hyalochaete	1.500	46.200			27.800	5.900		200	
C. spp. - phaeoceros	1.500								200
Coscinodiscus sp. 40-90 µm	200								
Cylindrotheca closterium	1.500	5.900	3.000	700	5.900	700	5.900	400	800
Gonioceros septentrionalis									
Guinardia flaccida									
Lauderia annulata									
Leptocylindrus danicus					135.900	46.100		400	200
Proboscia alata	200	200	1.500						100
Pseudonitzschia "delicatissima"	57.700	86.000	700			700	400	7.400	400
P. pungens	200				400	22.200		400	
P. seriata									
Rhizosolenia delicatula		1.500				400			200
R. fragilissima		400	1.500	700	4.400	26.600			
R. hebetata f. semispina									
R. imbricata var. shrubsolei	2.200								
R. setigera						600			
Skeletonema costatum	1.222.900	35.500			3.000	3.700			6.600
Thalassionema nitzschioides	3.700	4.400	3.700			600			800
Thalassiosira "gravida"									
T. nordenskiöldii								400	
T. sp. 10-12 µm									
T. spp., 15-20 µm								200	

ARENDAL - 1995	28/06/95	10/07/95	08/08/95	21/08/95	11/09/95	18/09/95	23/10/95	20/11/95	18/12/95
	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m
BACILLARIOPHYCEAE (forts.)									
Ubestemt sentrisk diatomeer 4-9 µm	46.100		69.200	46.200	23.100				11.500
" " " 9-14 µm									
" " " 14-20 µm							100		
" " " 20-30 µm	200							100	
" " " > 30 µm								100	100
Ubest. pennate diatomeer 6-9 µm									
" " " 9-14 µm								700	
" " " 14-20 µm								3.000	
" " " 20-30 µm								400	100
" " " > 30 µm									
EUGLENOPHYCEAE									
Eutreptia/ Eutreptiella 30-50 µm				23.100					
" " " 80-110 µm									
PRASINOPHYCEAE									
Pyramimonas spp. 3-6 µm									
Pyramimonas spp. 6-9 µm	23.100	11.500							
UKLASSIFISERT									
Flagellater med intakt flagell 1.5-3 µm	692.200	484.600	553.800	669.100	692.200	438.400	253.800	115.400	265.400
" " " 3-6 µm	853.700	830.700	1.707.500	1.915.100	1.407.500	300.000	46.100	288.400	126.900
" " " 6-9 µm	115.400	115.400	161.500	161.500	115.400	11.500		34.600	
" " " 9-14 µm			11.500						
" " " 14-20 µm									700
Celler uten flageller 1.5-3 µm	1.222.900	530.700	415.300	715.300	1.153.700	1.038.300	830.700	553.800	923.000
" " " 3-6 µm	4.153.300	2.976.500	807.600	599.900	346.100	669.100	253.800	242.300	219.200
" " " 6-9 µm	184.600	138.400	23.100	115.400	23.100	11.500	23.100		11.500
ZOOFLAGELLATER									
Telonema subtilis			11.500		46.100	34.600			
KRAGEFLAGELLATER									
Ubestemte krageflagellater 3-6 µm		11.500	46.100	23.100	46.100	11.500	23.100	11.500	
" " " 6-10 µm									

Tabell 3. Total mengde algekarbon angitt i pg/liter fordelt på de ulike algeklassene/-gruppene.

Dato	19/01/95	07/02/95	06/03/95	20/03/95	03/04/95	18/04/95	08/05/95	06/06/95
Dyp	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m
CRYPTOPHYCEAE	888.000	374.400	7.162.600	5.891.100	8.166.600	3.044.800	43.424.000	7.400.100
DINOPHYCEAE	3.831.200	1.381.900	11.010.200	13.557.500	2.242.600	5.991.600	12.388.900	53.683.200
PRYMNESIOPHYCEAE	0	0	0	4.522.700	8.398.600	484.400	553.600	11.557.700
CHRYSOPTHYCEAE	0	0	0	667.000	0	0	184.300	3.448.300
BACILLARIOPHYCEAE	350.500	190.900	4.924.800	71.403.900	77.876.000	0	7.000	5.317.600
EUGLENOPHYCEAE	0	0	188.000	1.480.000	0	0	28.000	0
PRASINOPHYCEAE	0	0	830.400	0	0	0	4.615.200	1.106.400
UKLASSIFISERT	3.915.650	1.686.000	6.483.850	11.006.450	19.600.950	29.695.350	33.837.050	37.646.600
ZOOFLAGELLATER	0	0	0	0	0	0	2.422.700	0
KRAGEFLAGELLATER	69.600	0	0	2.400.000	5.168.800	1.291.200	2.400.000	2.215.200
TOTALT ALGEKARBON	9.054.950	3.633.200	30.599.850	110.928.650	121.453.550	40.507.350	99.860.750	122.375.100

Dato	28/06/95	10/07/95	08/08/95	21/08/95	11/09/95	18/09/95	23/10/95	20/11/95	18/12/95
Dyp	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m	0-30 m
CRYPTOPHYCEAE	8.580.700	33.530.300	5.373.300	3.714.400	12.299.200	4.869.000	4.639.000	10.898.500	1.821.000
DINOPHYCEAE	78.568.200	65.416.700	87.159.180	173.846.100	64.427.460	129.507.740	11.388.280	17.293.920	8.509.500
PRYMNESIOPHYCEAE	7.257.500	44.398.200	11.445.200	10.358.600	8.054.400	4.707.000	1.152.500	145.000	287.500
CHRYSOPTHYCEAE	149.500	20.000	57.500	115.500	1.339.800	680.000	0	1.150.000	0
BACILLARIOPHYCEAE	23.676.200	8.429.500	3.859.600	1.547.000	44.316.300	12.879.900	151.000	891.200	921.200
EUGLENOPHYCEAE	0	0	0	3.234.000	0	0	0	0	0
PRASINOPHYCEAE	554.400	276.000	0	0	0	0	0	0	0
UKLASSIFISERT	52.043.750	39.087.050	27.663.950	30.226.600	21.967.550	11.996.550	5.664.850	6.749.000	6.213.200
ZOOFLAGELLATER	0	0	80.500	0	322.700	242.200	0	0	0
KRAGEFLAGELLATER	0	92.000	368.800	184.800	368.800	92.000	184.800	92.000	0
TOTALT ALGEKARBON	170.830.250	191.249.750	136.008.030	223.227.000	153.096.210	164.974.390	23.180.430	37.219.620	17.752.400

Tabell 4. Resultater av algetellinger fra 5 meters dyp ved Jomfruland. Tallene angir celler/liter.

JOMFRULAND - 1995	12/01/95	09/02/95	02/03/95	23/03/95	05/04/95	20/04/95	07/06/95	15/06/95	03/08/95
	5 m	5 m	5 m	5 m	5 m	5 m	5 m	5 m	5 m
CRYPTOPHYCEAE									
<i>Leucocryptos marina</i>								54.400	
cf. <i>Plagioselmis</i> sp.			13.600	27.200	13.600		54.400	646.000	40.800
cf. <i>Teleaulax acuta</i>								13.600	
DINOPHYCEAE									
<i>Ceratium furca</i>		40	120				120	80	3.440
<i>C. fusus</i>			40				120	640	960
<i>C. horridum</i>									
<i>C. lineatum</i>								80	160
<i>C. longipes</i>		40	80	40		160	10.160	1.920	1.040
<i>C. macroceros</i>								40	
<i>C. tripos</i>							80	1.120	
<i>Dinophysis acuminata</i>				120				160	40
<i>D. acuta</i>									80
<i>D. norvegica</i>				40		360	1.480	1.680	160
<i>Entomosigma peridinioides</i>								27.200	
<i>Gonyaulax</i> sp.									6.800
<i>Gyrodinium aureolum</i>									
<i>Heterocapsa triquetra</i>							136.000	13.600	
<i>H. niei</i>									13.600
<i>K. rotundatum</i>								27.200	
<i>Polykrikos schwartzii</i>									
<i>Prorocentrum balticum</i>							13.600	6.800	
<i>P. micans</i>									160
<i>P. pellucidum</i>				6.800					
<i>P. spp.</i>						120	40	120	40
Ubest. athecate dinoflagellater 6-9 µm		13.600					40.800		
* 9-14 µm				13.600			54.400	68.000	
* 14-20 µm					27.200	13.600	6.800	13.600	27.200
* > 30 µm				4.560					
Ubest. thecate dinoflagellater 14-20 µm								27.200	
* 20-30 µm				6.800					
PRYMNESIOPHYCEAE									
<i>Chrysochromulina</i> spp.							380.000	38.000	27.200
<i>Emiliania huxleyi</i>							81.600	54.400	95.200
<i>Phaeocystis</i> sp.				68.000	54.400	60.000			

JOMFRULAND - 1995	12/01/95	09/02/95	02/03/95	23/03/95	05/04/95	20/04/95	07/06/95	15/06/95	03/08/95
	5 m	5 m	5 m	5 m	5 m	5 m	5 m	5 m	5 m
CHRYSOPHYCEAE									
cf. <i>Apedinella spinifera</i>				27.200					
<i>Dinobryon petiolatum</i>								13.600	
<i>Pseudopedinella</i> sp.									
BACILLARIOPHYCEAE									
<i>Biddulphia aurita</i>				13.600					
<i>Cerataulina pelagica</i>									
<i>Chaetoceros affinis</i>									
<i>C. spp. - hyalochaete</i>					367.200				
<i>Coscinodiscus</i> sp., 40-90 µm				320		40			
<i>Leptocylindrus danicus</i>									190.400
<i>L. minimus</i>									
<i>Proboscia alata</i>									6.800
<i>Pseudonitzschia "delicatissima"</i>				13.600				108.800	13.600
<i>R. fragilissima</i>									27.200
<i>R. hebetata</i> f. <i>semispina</i>				13.600					
<i>R. imbricata</i> var. <i>shrubsolei</i>				108.800					
<i>Skeletonema costatum</i>								17.516.000	
<i>Thalassionema nitzschioides</i>									40.800
<i>Thalassiosira</i> spp., 15-20 µm					13.600				
Ubestemt sentrisk diatome 4-9 µm					13.600				
Ubestemt diatome 14-20 µm									
PRASINOPHYCEAE									
<i>Halosphaera</i>						40			
<i>Pyramimonas</i> spp.							152.000		
UKLASSIFISERT									
Flagellater/monader <9 µm	27.200	1.581.600	1.370.200	829.000	380.000	38.000	22.800.000	2.025.000	684.000

Tabell 4 forts.

JOMFRULAND - 1995	16/08/95	30/08/95	13/09/95	12/10/95	30/10/95	05/12/95
	5 m	5 m	5 m	5 m	5 m	5 m
CRYPTOPHYCEAE						
Leucocryptos marina						
cf. Plagioselmis sp.	13.600	27.200				13.600
cf. Teleaulax acuta		13.600			13.600	
DINOPHYCEAE						
Ceratium furca	440	4.080	200	1.000	4.560	40
C. fusus	240		40	240	760	40
C. horridum				80		40
C. lineatum				40		
C. longipes	40				40	
C. macroceros						
C. tripos		80		240	440	
Dinophysis acuminata	40	80		80	80	
D. acuta				40	200	
D. norvegica	40				160	
Entomosigma peridinioides						
Gonyaulax sp.						
Gyrodinium aureolum				6.800		
Heterocapsa triquetra						
H. niei			54.400		13.600	
K. rotundatum						
Polykrikos schwartzii		6.280		80		
Prorocentrum balticum				13.600	13.600	
P. micans	80	120		880	5.480	
P. pellucidum						
P. spp.					680	
Ubest. athecate dinoflagellater 6-9 µm				54.400	13.600	13.600
* 9-14 µm		27.200		27.200		13.600
* 14-20 µm				27.200	6.800	
* > 30 µm						
Ubest. thecate dinoflagellater 14-20 µm						
* 20-30 µm						
PRYMNESIOPHYCEAE						
Chrysochromulina spp.						
Emiliania huxleyi	27.200	266.000	54.400			
Phaeocystis sp.						

JOMFRULAND - 1995	16/08/95	30/08/95	13/09/95	12/10/95	30/10/95	05/12/95
	5 m	5 m	5 m	5 m	5 m	5 m
CHRYSOPHYCEAE						
cf. Aedinella spinifera						
Dinobryon petiolatum						
Pseudopedinella sp.				13.600		
BACILLARIOPHYCEAE						
Biddulphia aurita						
Cerataulina pelagica		13.600				
Chaetoceros affinis		13.600				
C. spp. - hyalochaete		108.800	27.200			
Coscinodiscus sp. 40-90 µm						
Leptocylindrus danicus						
L. minimus			40.800			
Proboscia alata						
Pseudonitzschia "delicatissima"						
R. fragilissima			108.800			
R. hebetata f. semispina						
R. imbricata var. shrubsolei						
Skeletonema costatum						
Thalassionema nitzschioides						
Thalassiosira spp., 15-20 µm						
Ubestemt sentrisk diatome 4-9 µm						
Ubestemt diatome 14-20 µm		27.200				
PRASINOPHYCEAE						
Halosphaera						
Pyramimonas spp.						
UKLASSIFISERT						
Flagellater/monader <9 µm	228.000	380.000	114.000	190.000	255.200	190.000

**Tabell 5.** Resultater av kvalitative algeanalyser av håvtrekk fra 5-0 meter tatt ved Jomfruland.

Dato	Kommentar
02.01.95	Dominert av tomme skall av <i>Ceratium</i> spp.
02.03.95	Både dinoflagellater og diatomeer (kiselalger) var framtreddende. <i>Scrippsiella trochoidea</i> og <i>Skeletonema costatum</i> var de dominerende artene. Forekomster av <i>Alexandrium</i> .
23.03.95	Diatomeen <i>Rhizosolenia hebetata</i> f. <i>semispina</i> dominerte, men også betydelige forekomster av andre diatomeer med <i>Chaetoceros socialis</i> , <i>C. subsecundus</i> , <i>Coscinodiscus</i> sp. og <i>Thalassiosira nordenskioeldii</i> som de mest framtreddende artene. En god del <i>Phaeocystis</i> sp. Lite dinoflagellater.
05.04.95	<i>Chaetoceros subsecundus</i> , <i>Rhizosolenia hebetata</i> f. <i>semispina</i> , <i>Thalassiosira nordenskioeldii</i> og <i>Phaeocystis</i> sp. var alle sterkt framtreddende arter.
20.04.95	Håvtrekket var dominert av dinoflagellater der artene <i>Protoperidinium depressum</i> og <i>Dinophysis acuminata</i> og <i>D. norvegica</i> dominerte. Framtreddende var også <i>Ceratium longipes</i> og <i>Coscinodiscus</i> sp.
07.06.95	Dinoflagellatene dominerte håvtrekket med <i>Heterocapsa triquetra</i> og <i>Dinophysis norvegica</i> som de mest framtreddende artene.
15.06.95	Diatomeen <i>Skeletonema costatum</i> dominerte helt håvtrekket, men der var også et betydelig innslag av dinoflagellater der <i>Heterocapsa triquetra</i> , <i>Dinophysis norvegica</i> og <i>Ceratium tripos</i> var de mest framtreddende artene.
03.08.95	Håvtrekket var helt dominert av dinoflagellatslekten <i>Ceratium</i> der både <i>C. furca</i> , <i>C. fusus</i> og <i>C. tripos</i> var svært framtreddende, dog med noe overvekt av <i>C. furca</i> . Av kiselalger forekom en god del <i>Proboscia alata</i> og <i>Rhizosolenia fragilissima</i> , men disse var i dårlig form.
16.08.95	<i>Ceratium furca</i> dominerte håvtrekket. En del <i>Emiliana huxleyi</i> ble observert.
30.08.95	Dinoflagellaten <i>Polykrikos schwartzii</i> dominerte håvtrekket. Der var et betydelig innslag av andre dinoflagellater med <i>Ceratium furca</i> som den mest framtreddende arten.
13.09.95	Diatomeene dominerte håvtrekket. Framtreddende arter var <i>Leptocylindrus danicus</i> sammen med <i>Chaetoceros</i> -artene <i>C. affinis</i> , <i>C. compressus</i> og <i>C. socialis</i> . Lite dinoflagellater.
12.10.95	Dinoflagellatslekten <i>Ceratium</i> dominerte igjen håvtrekket og <i>C. furca</i> , <i>C. fusus</i> og <i>C. tripos</i> var alle framtreddende arter. I tillegg forekom en god del <i>Protoperidinium curtipes/crassipes</i> og <i>Prorocentrum micans</i> .
30.10.95	Dinoflagellatene dominerte håvtrekket med de samme artene som 12.10, men <i>Ceratium furca</i> var nå mest dominerende blant ceratiene.
05.12.95	Tomme skal av <i>Ceratium furca</i> var mest framtreddende.

Tabell 6. Skjema over identifiserte arter.

DYREPLANKTON ARTSFORDELING ST.2 SFT 1994 Redskap: WP-2 hlv, diam. 56cm  
maskevidde: 200µm

Antall pr. m2 overflate

Art./gruppe	20-jan	03-feb	15-feb	07-mar	21-mar	08-apr	29-apr	18-mai	06-jun	27-jun	11-jul	01-aug	08-aug	23-aug	05-sep	03-okt	17-okt	02-nov	14-nov	01-des
Calanus spp.	120	240	1160	2192	1024	1280	640	6656	11264	640	13056	3584	6656	13184	1792	10240	4352	1152	896	512
Andre calanoider kop.	5040	26160	19240	4624	21696	20992	10880	13128	478208	24448	83200	202496	245248	16640	65536	23808	67712	44672	41344	18944
Cyclopoider kop.	1560	4800	1480	14016	4480			7424	11776	896	50432	10752	8448	10112	6144	9984	29568	10496	2560	3584
Calanoider kop. naupl.		80			9920						512				128	768	1280		120	
Euphausiacea											512									
Euphausiacea naupl.						512					512									
Amphipoda	8	80	120			256					1152	256		128	256	120				
Decapoda												2304	1280							
Ostrachoda			40	288																
Cladocera						512		35840	11776	3328	8192	4352	4352	5632	768	1664		128		
Cirriped larver				1424	1856	2048	256			384	512									
Chaetognatha		152	480	64																256
Gastropoda/Brachiop.		88	40				384		13824	1024	2816			128						
Hydrozoa																				
Ctenophora		16																		
Appendicularia														128						256
Echinodermata														3072	38144					
Polychaeta		80			64															
Pisces larver																				

Merknader: diatom, diatom, diatom.

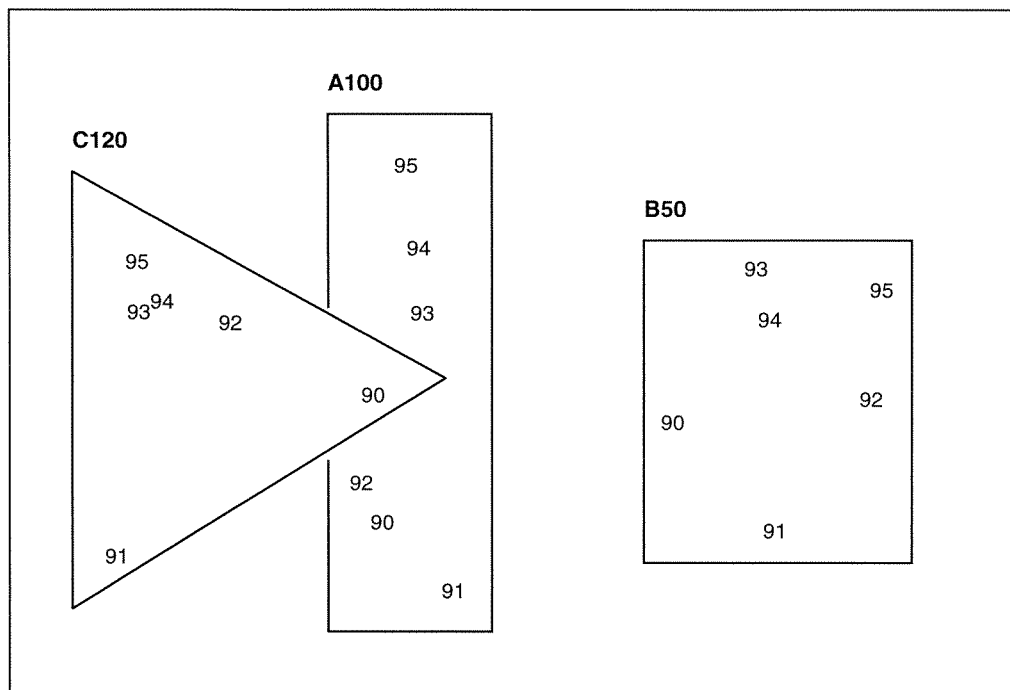
DYREPLANKTON ARTSFORDELING ST.2 SFT 1995 Redskap: WP-2 hlv, diam. 56cm  
maskevidde: 200µm

Antall pr. m2 overflate

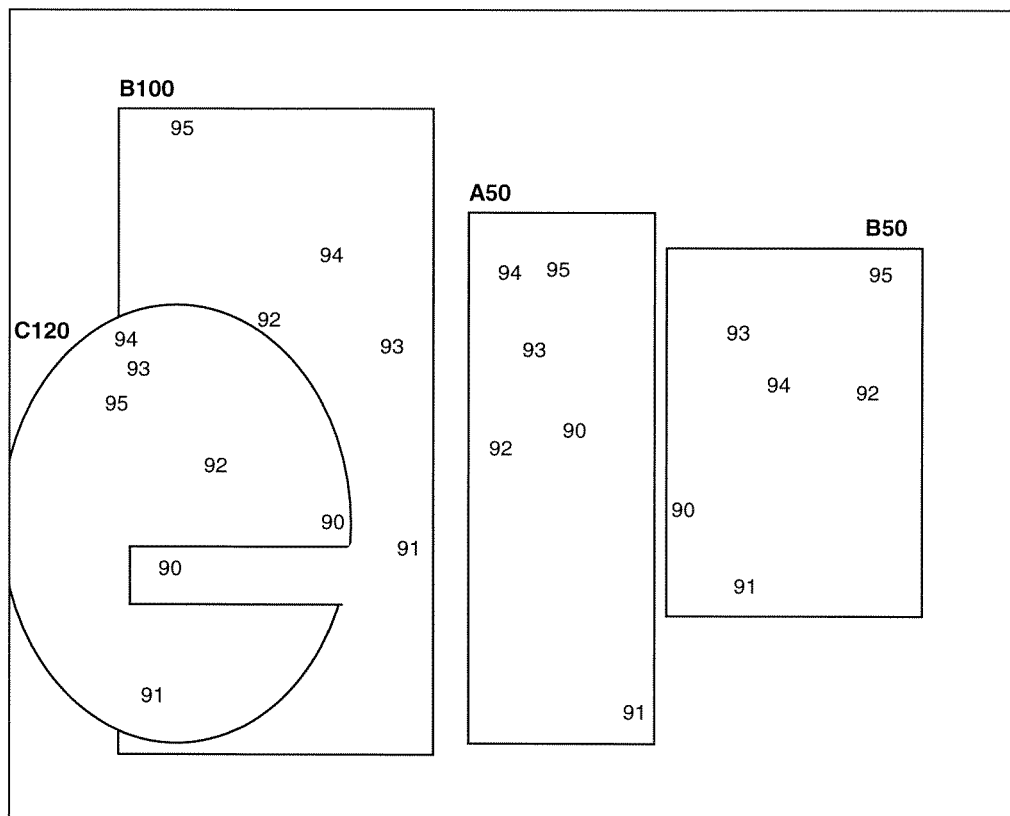
Art./gruppe	19-jan	07-feb	06-mar	20-mar	03-apr	18-apr	15-mai	06-jun	28-jun	10-jul	26-jul	08-aug	21-aug	11-sep	18-sep	09-okt	23-okt	06-nov	20-nov	01-des	18-des
Calanus spp.	128	104	424	240	12288	5808	9728	3712	5632	9216	13824	1536	6144	6144	1280	1984	1056	1568	152	120	256
Andre calanoider kop.	11264	9216	13696	12032	14848	43520	10496	8064	13444	72704	195072	198144	140544	99584	62464	8576	3296	8704	576	1752	1856
Cyclopoider kop.	10368	2176	1536	5120	5120	24576	1792	10880	12544	60416	49684	14336	10496	12800	9800	4768	10304	120	1656	3328	
Calanoider kop. naupl.		128	512	256	7168	2048		384	256	3072	512	1536	1024	1536	512	1344		32	16		
Euphausiacea					256	1536				512			256								
Euphausiacea naupl.		32			768	2048		128		512	2048	1024				256					
Amphipoda																			32	64	0
Decapoda			16		56							1024	256			128					
Ostrachoda																					
Cladocera				256	768	1024	4096	37888	>128000	86256	10240	7680	5120	24320	9984	64	64	32	32	8	
Cirriped larver			4864	4352	768	1024	3072	1152	2816												
Chaetognatha		56	40	168																	
Gastropoda/Brachiop.			0	24								23040	51712	15104	4352	16384	960	64	480	224	48
Hydrozoa																					
Ctenophora																					
Appendicularia				2560																	
Echinodermata		56																			
Polychaeta		8								13312	9728	12800	1024	4096							
Pisces larver																					64

Merknader: diatom, diatom, diatom.

## Vedlegg B. Bløtbunn

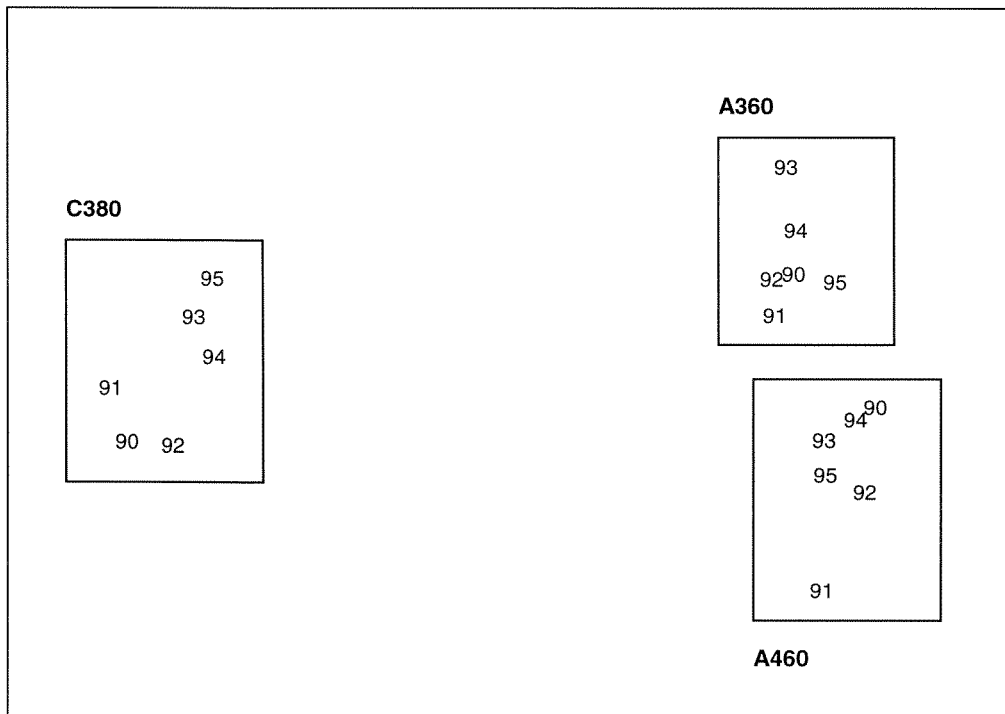


**Figur 1.** MDS-plott av grunne stasjoner 1990-1995. Årstallene er angitt i hver stasjonsboks.

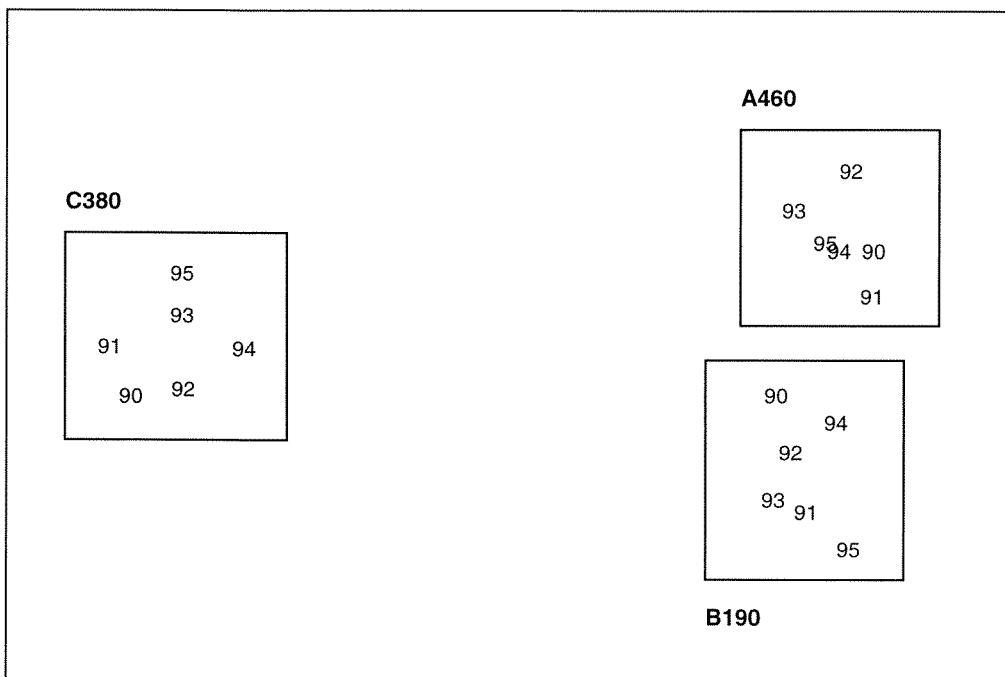


**Figur 2.** MDS-plott av grunne stasjoner 1990-1995.

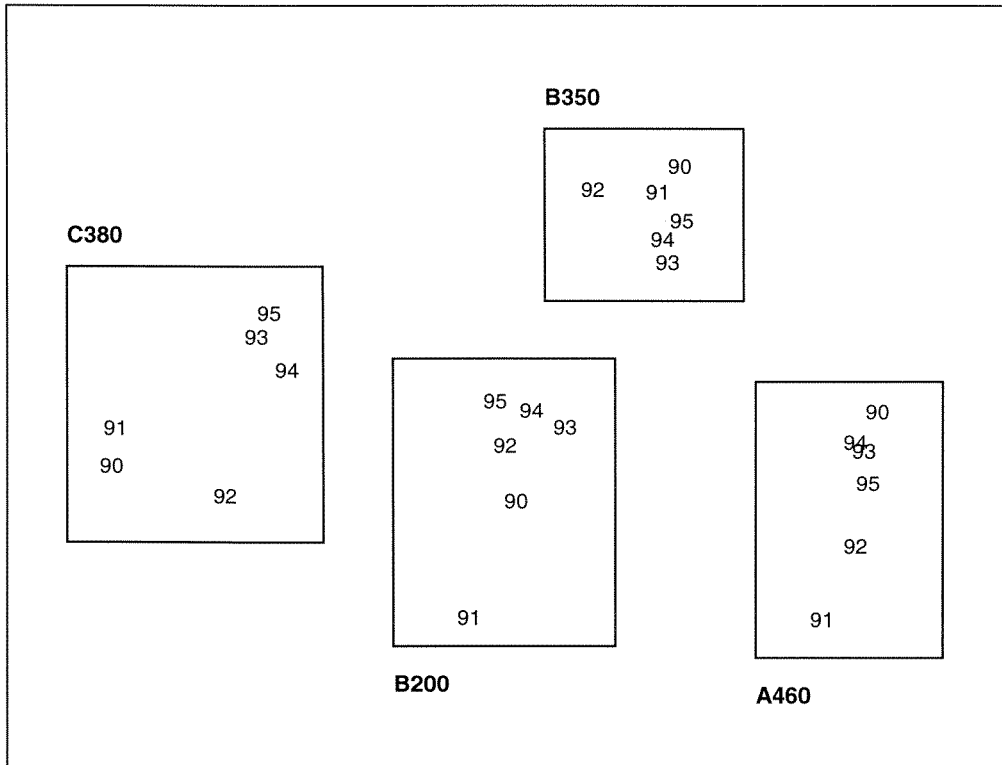




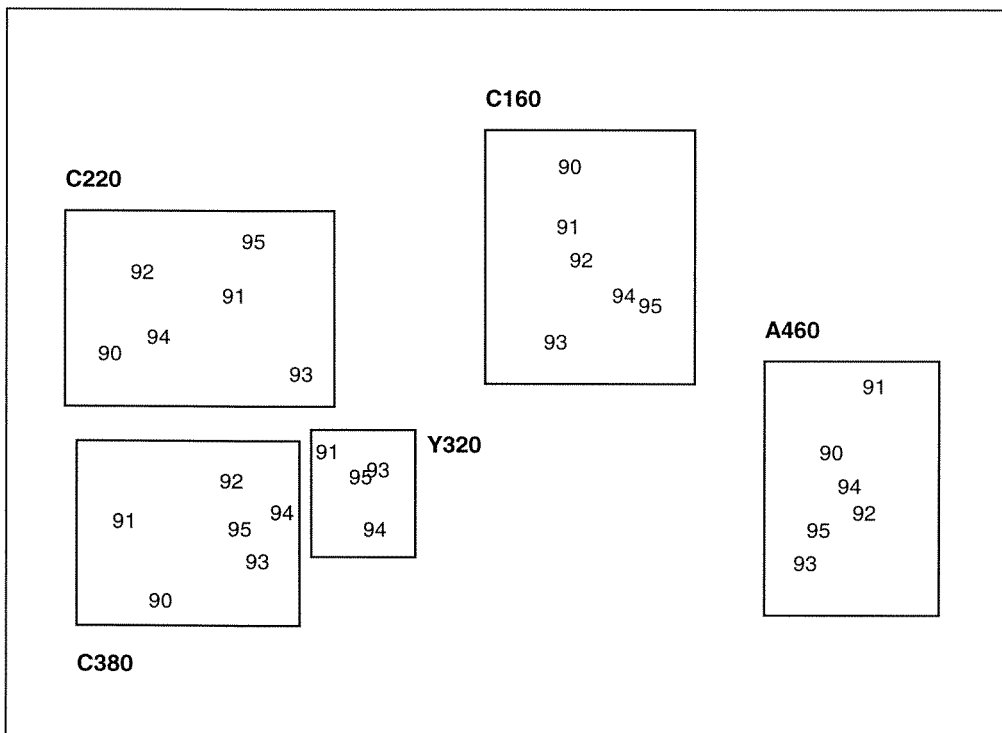
**Figur 3.** MDS-plott av dype stasjoner 1990-1995.



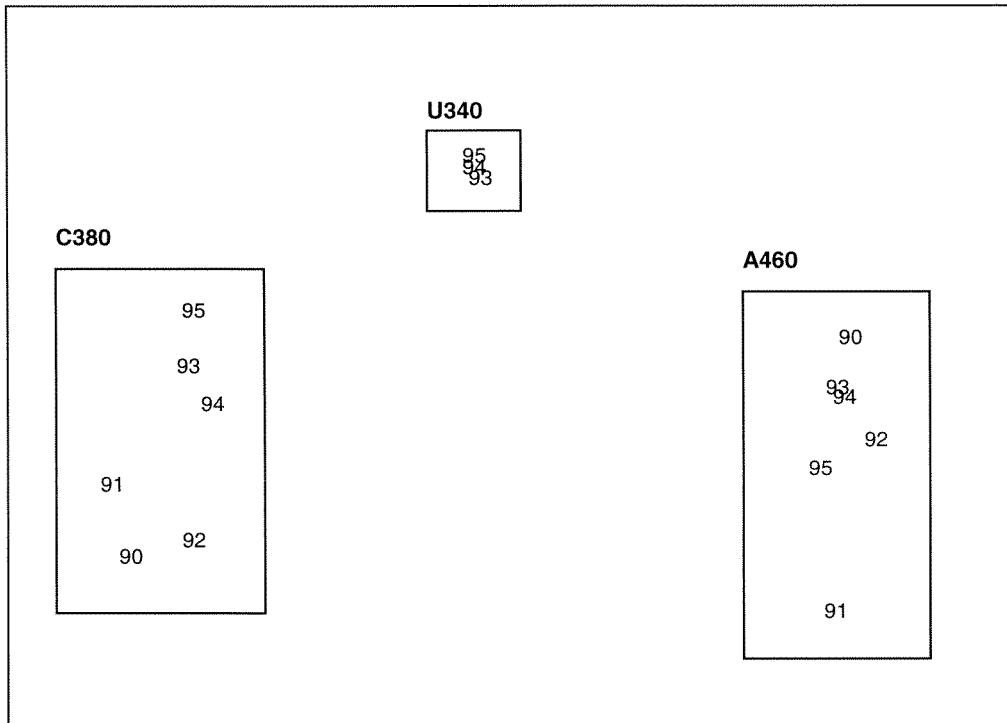
**Figur 4.** MDS-plott av dype stasjoner 1990-1995.



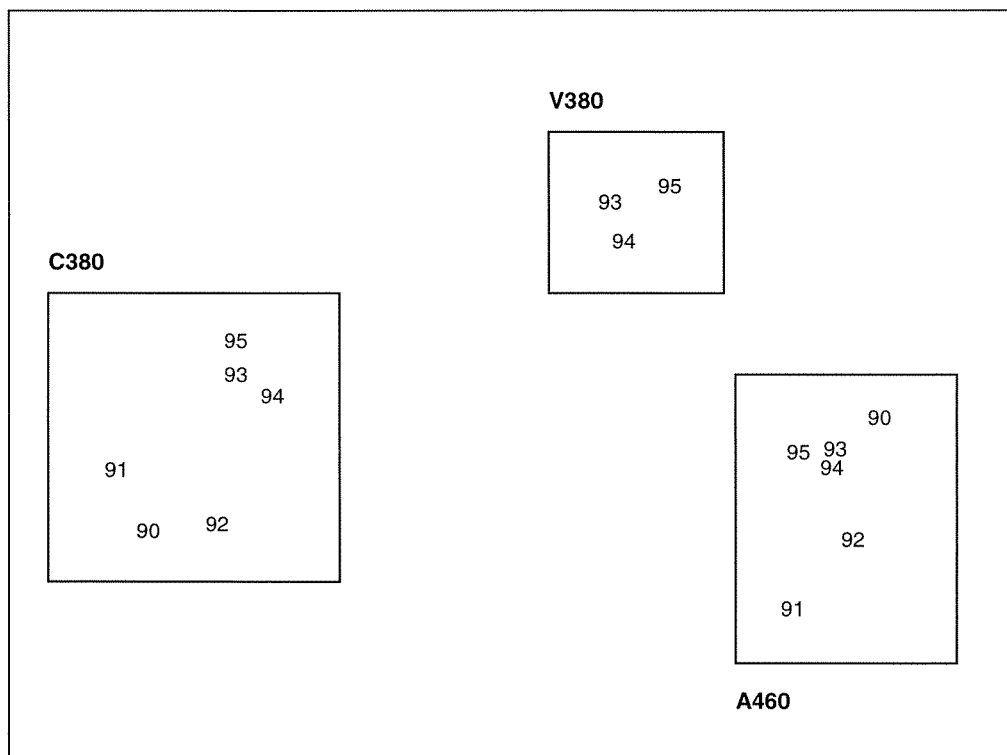
Figur 5. MDS-plott av dype stasjoner 1990-1995.



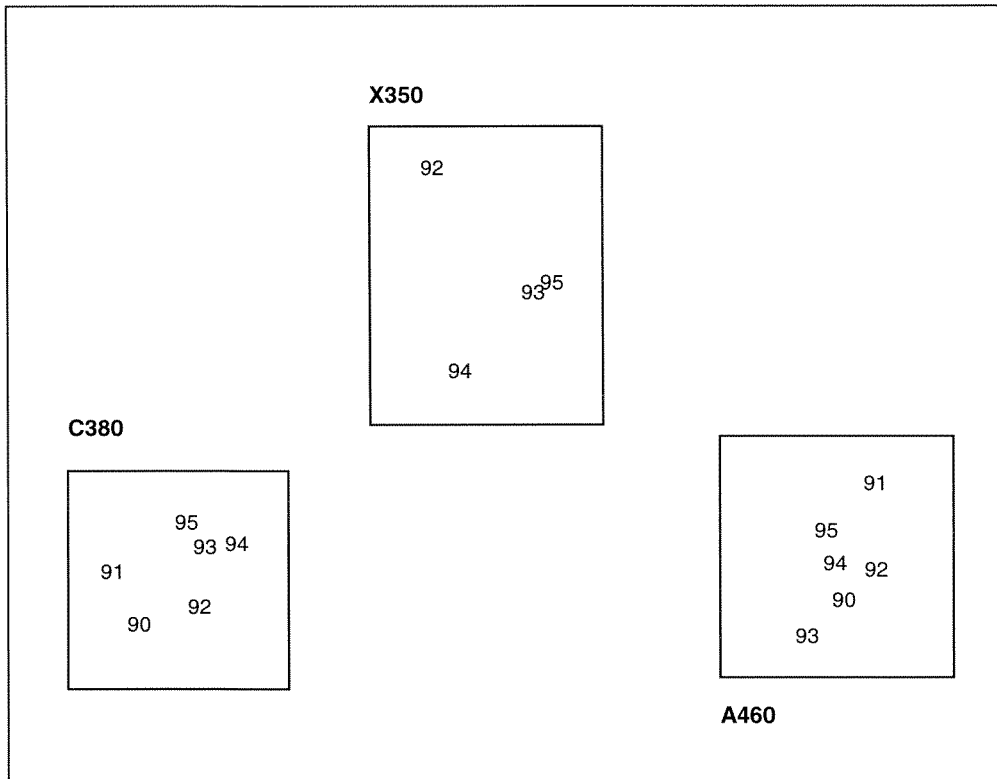
Figur 6. MDS-plott av dype stasjoner 1990-1995.



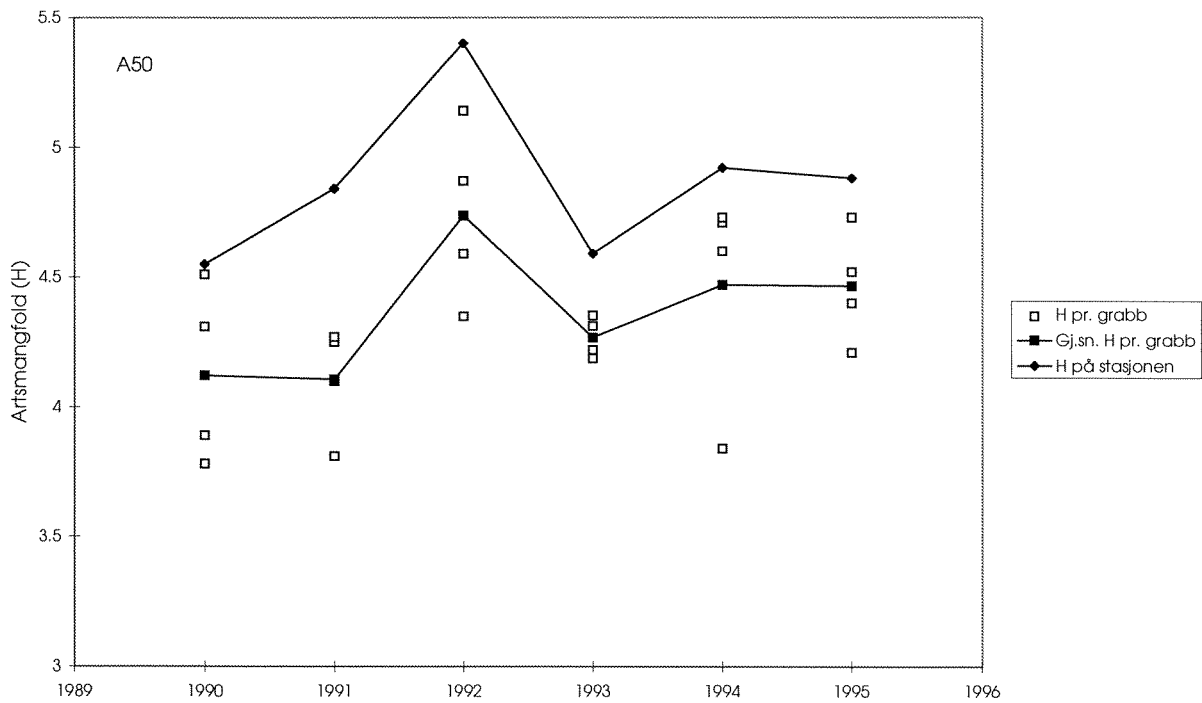
Figur 7. MDS-plott av dype stasjoner 1990-1995.



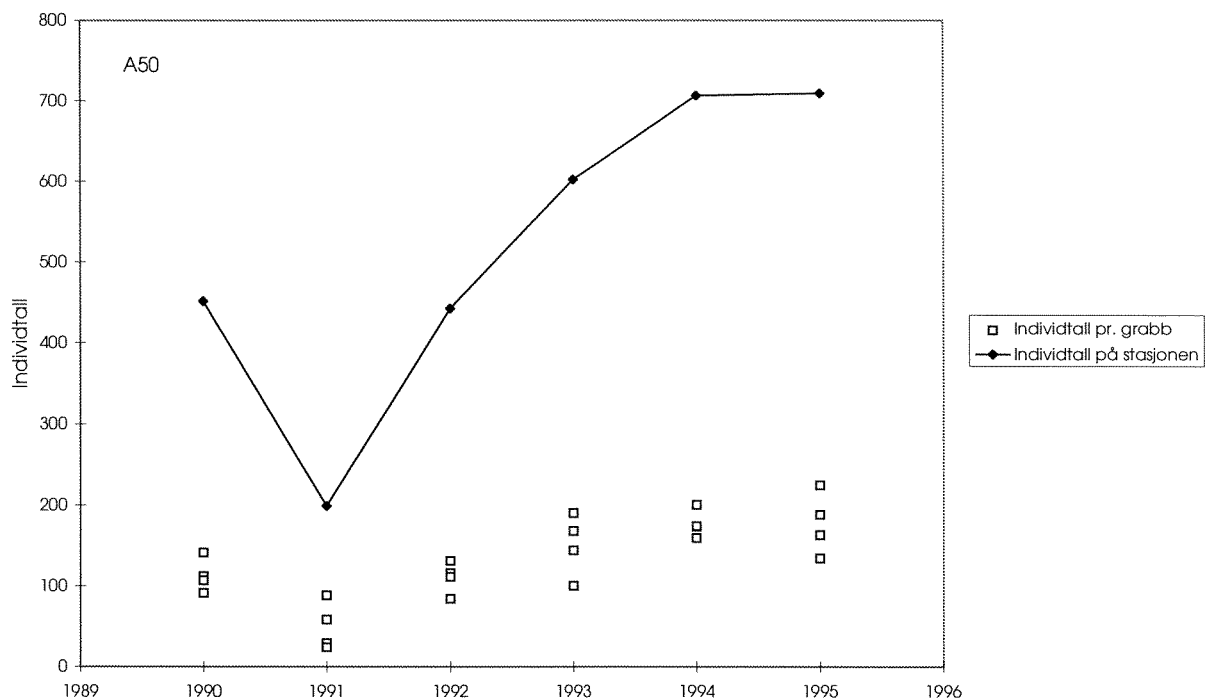
Figur 8. MDS-plott av dype stasjoner 1990-1995.



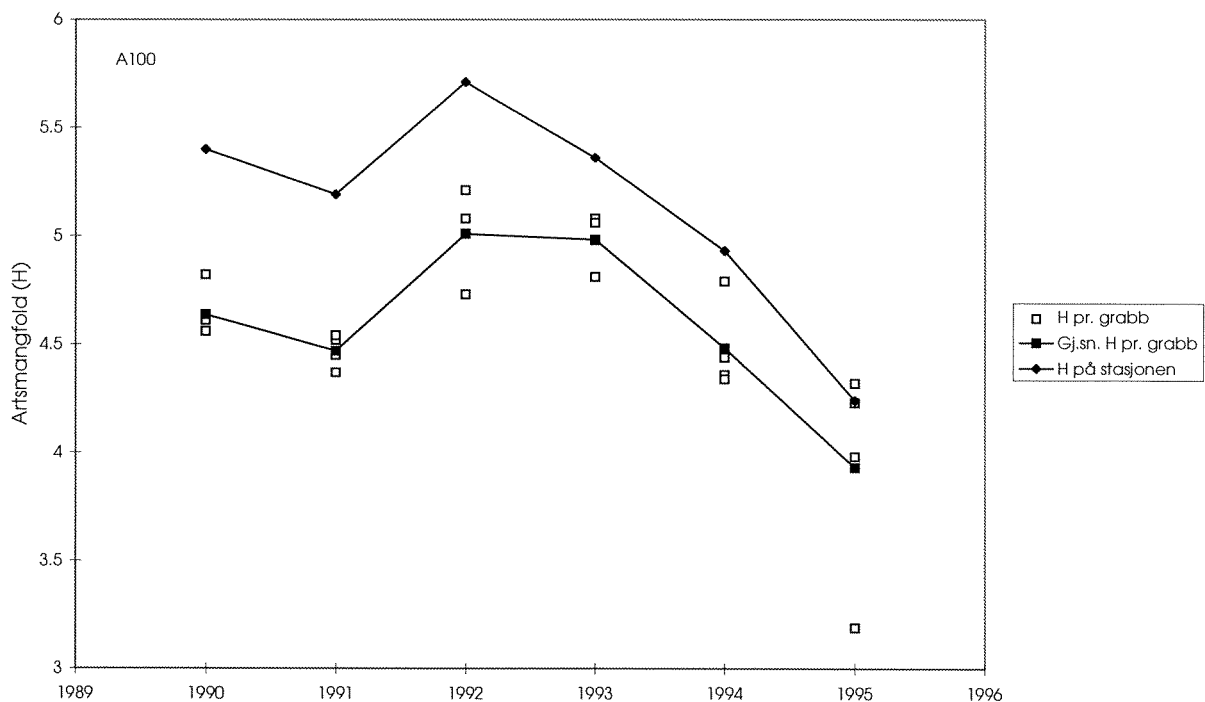
Figur 9. MDS-plott av dype stasjoner 1990-1995.



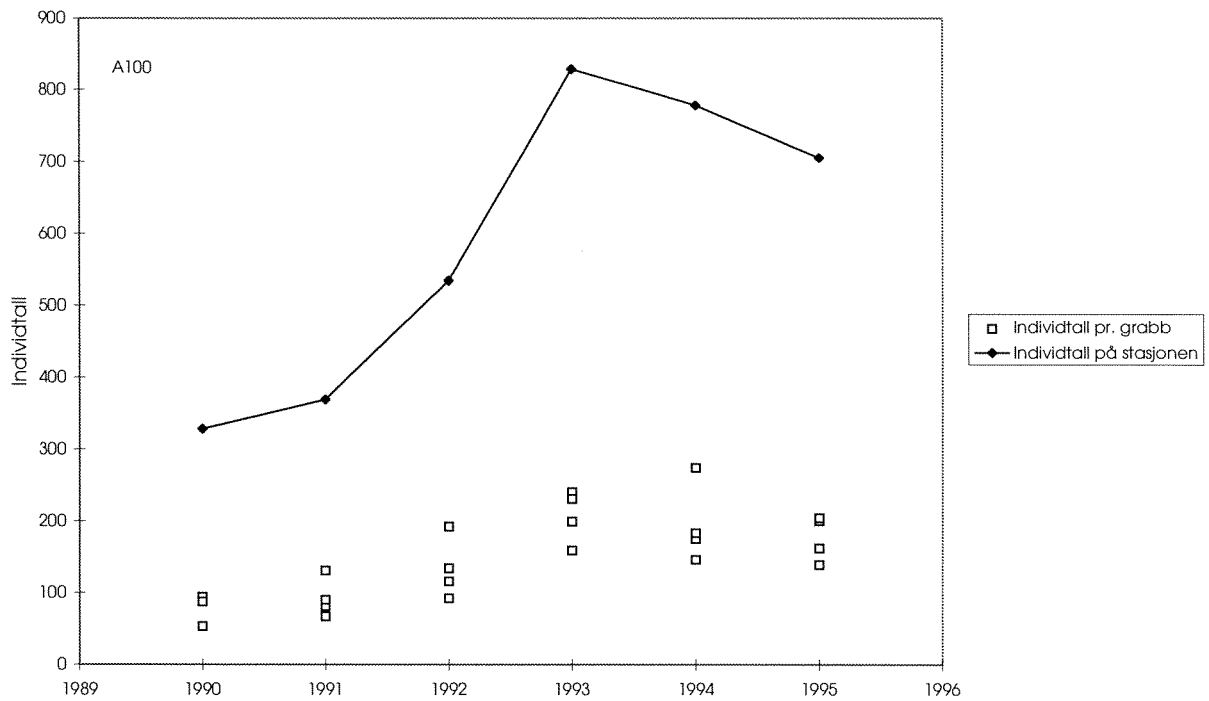
Figur 10. Artsmangfold (H) på stasjon A50 i 1990-1995.



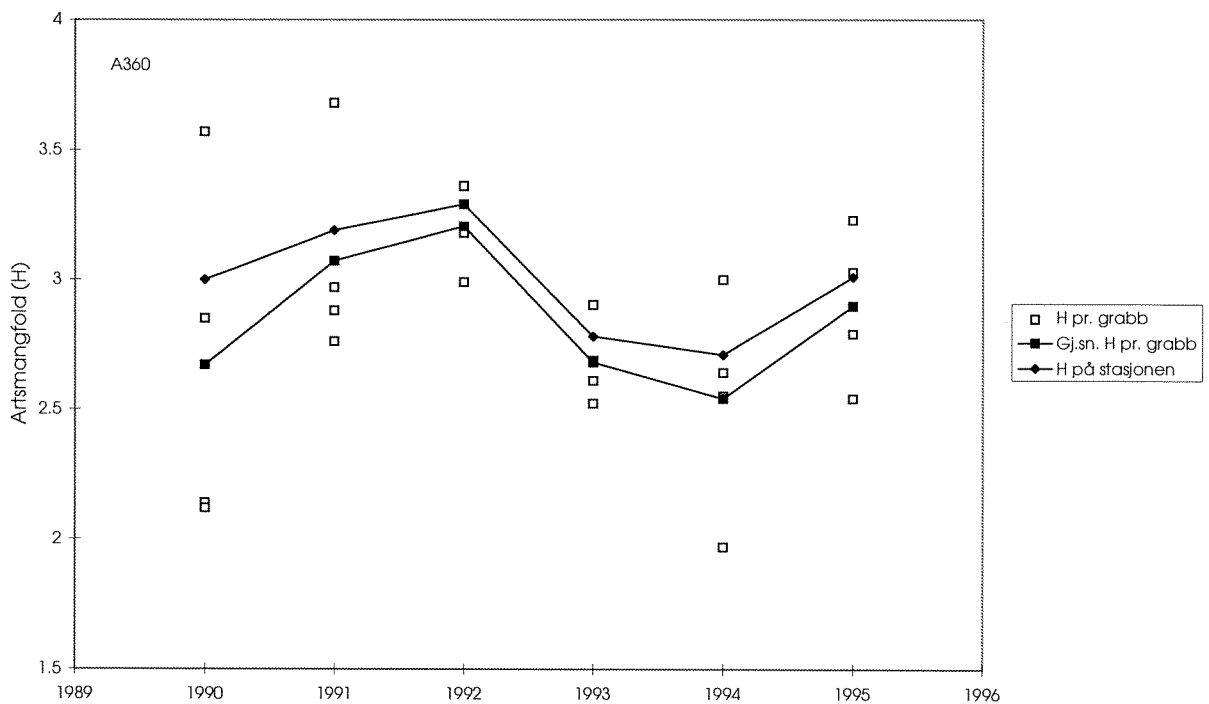
Figur 11. Individtall på stasjon A50 i 1990-1995.



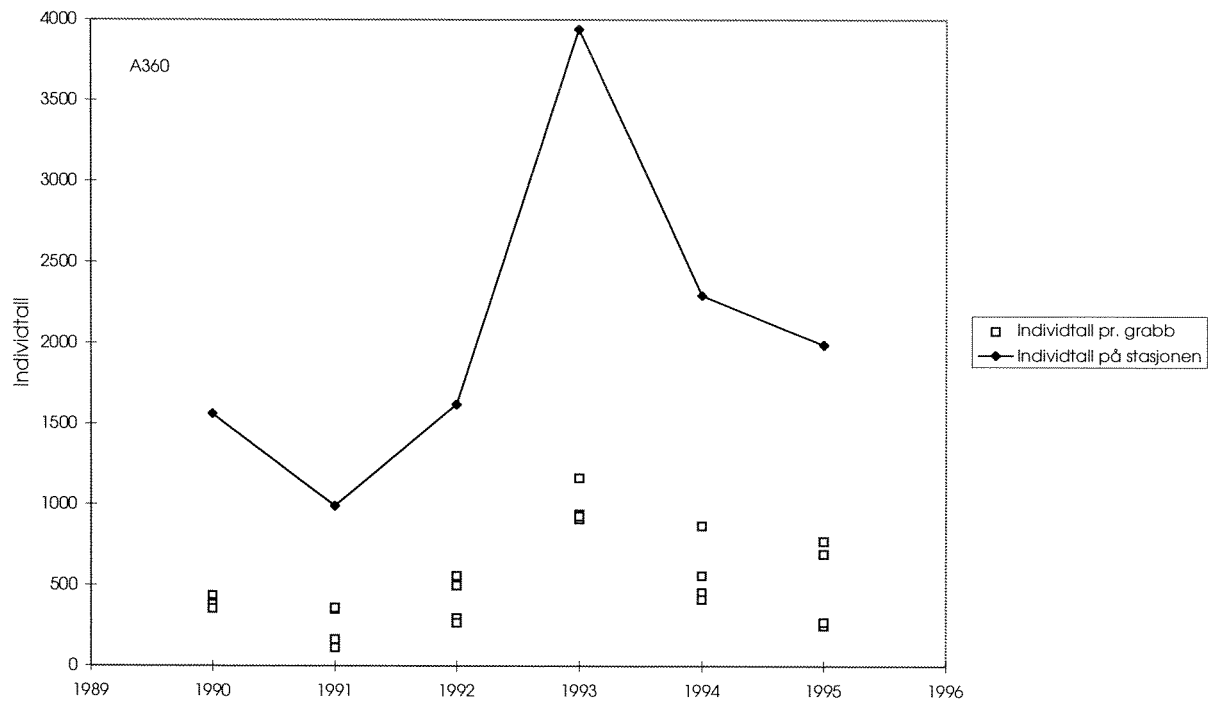
Figur 12. Artsmangfold (H) på stasjon A100 i 1990-1995.



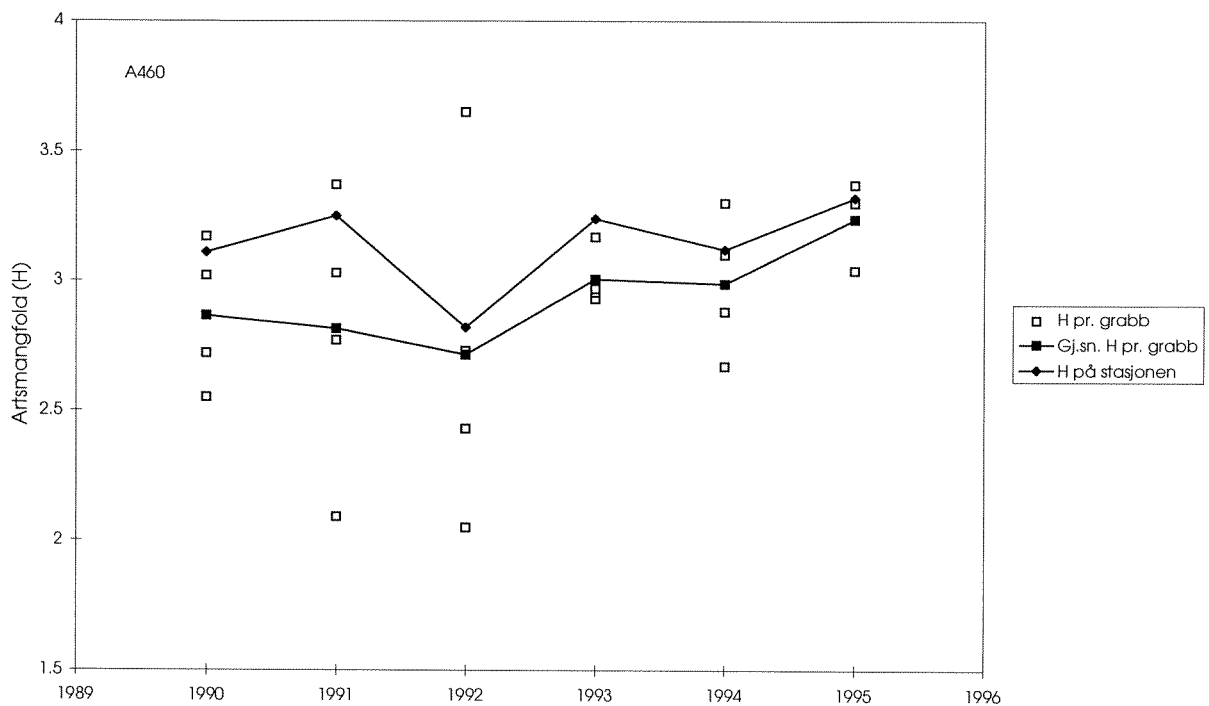
Figur 13. Individuttall på stasjon A100 i 1990-1995.



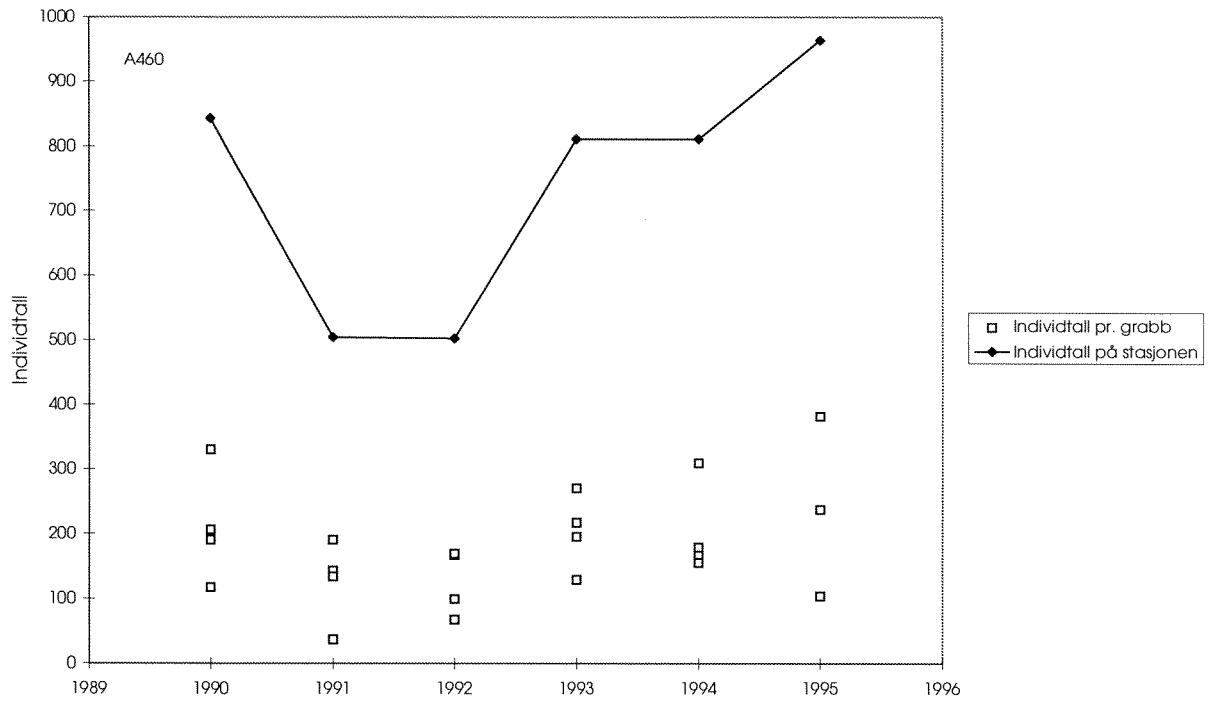
Figur 14. Artsmangfold (H) på stasjon A360 i 1990-1995.



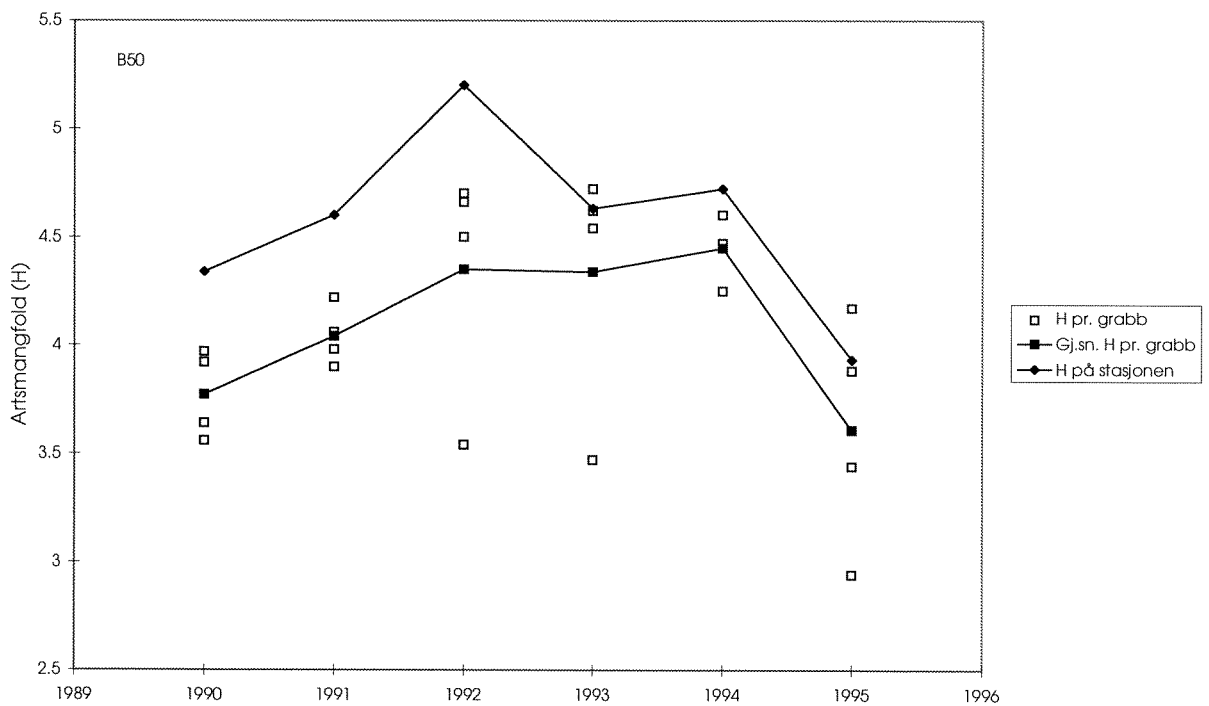
Figur 15. Individtall på stasjon A360 i 1990-1995.



Figur 16. Artsmangfold (H) på stasjon A460 i 1990-1995.

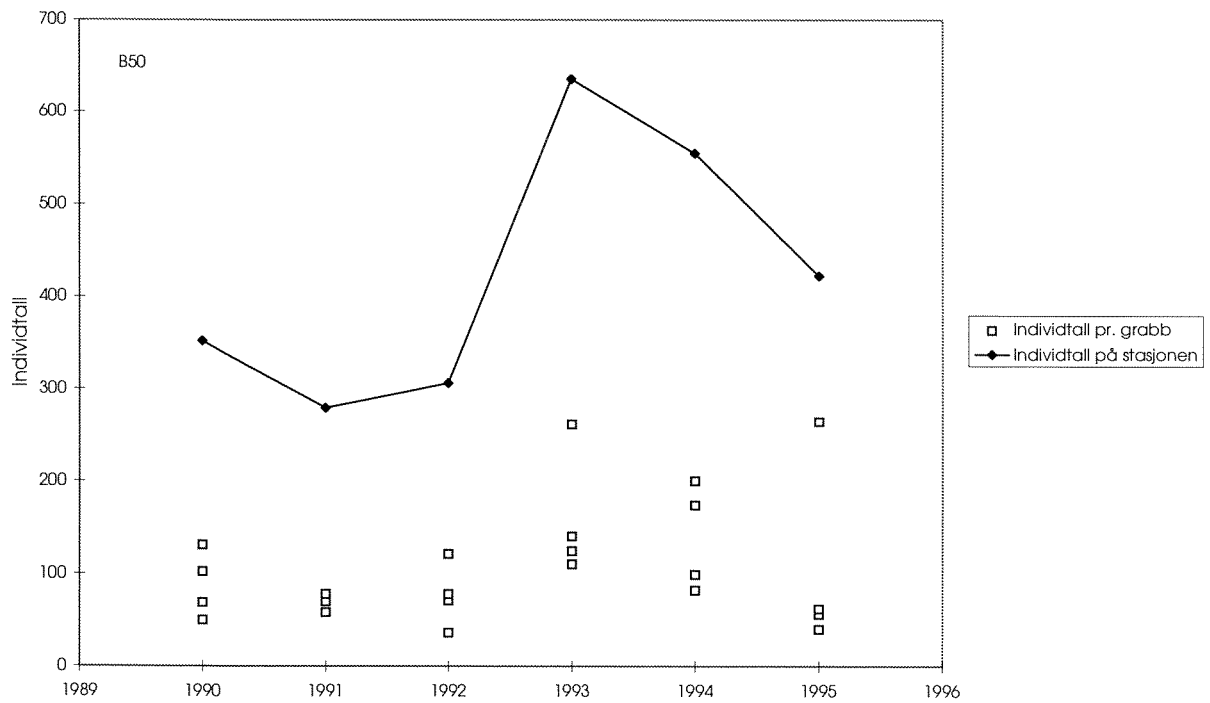


Figur 17. Individtall på stasjon A460 i 1990-1995.

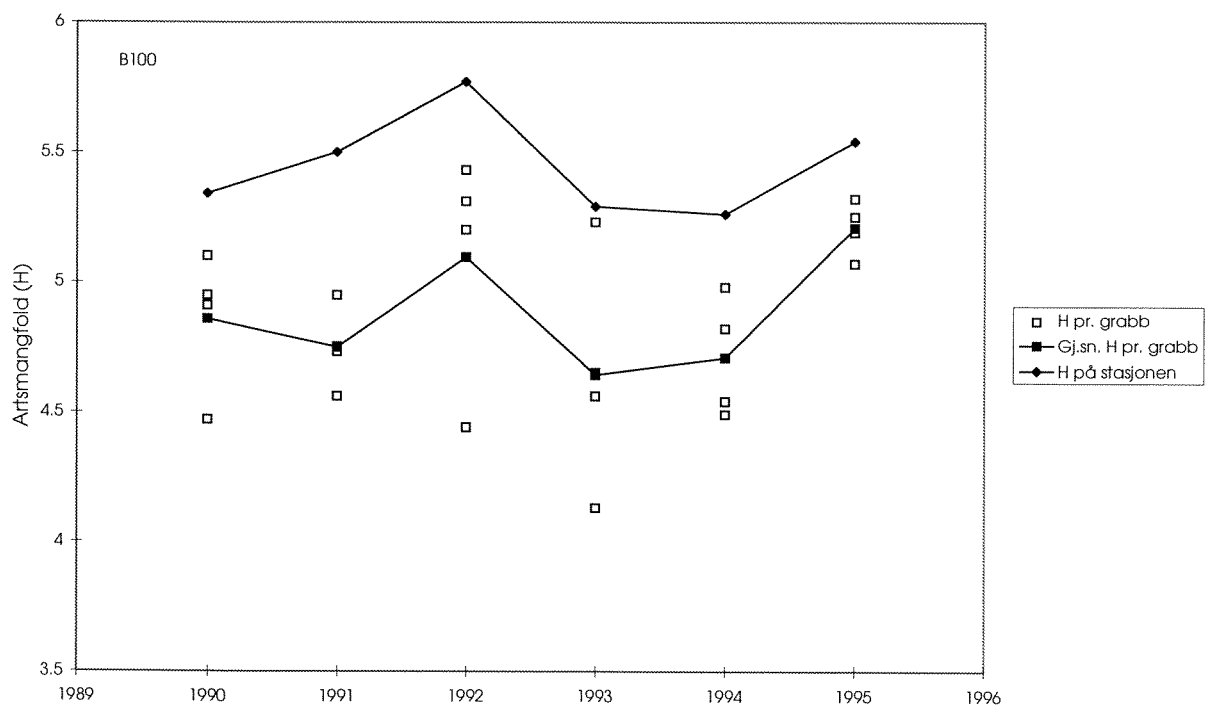


Figur 18. Artsmangfold (H) på stasjon B50 i 1990-1995.

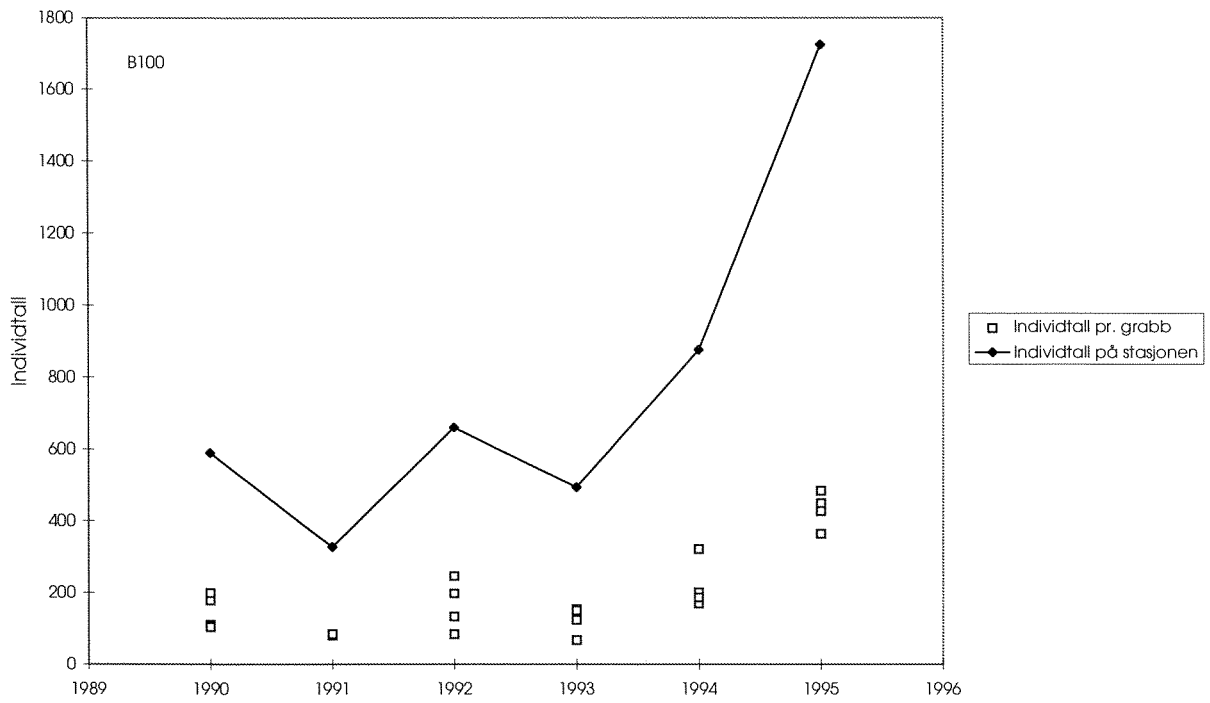




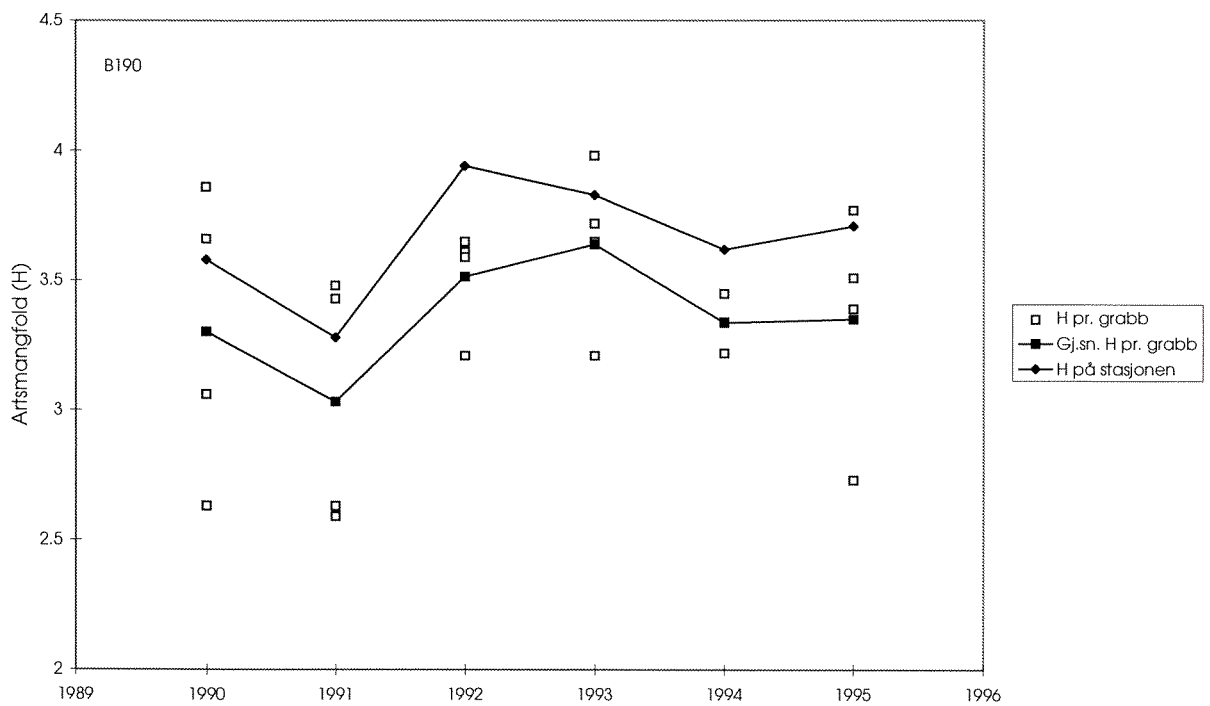
Figur 19. Individtall på stasjon B50 i 1990-1995.



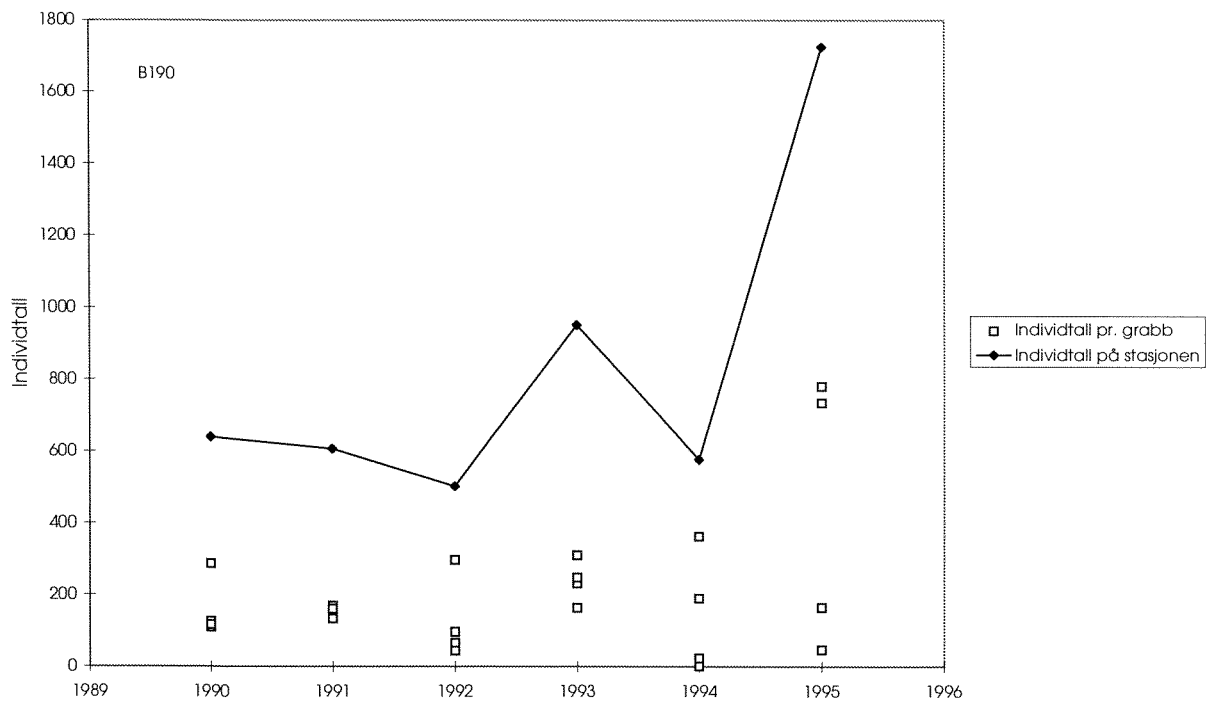
Figur 20. Artsmangfold (H) på stasjon B100 i 1990-1995.



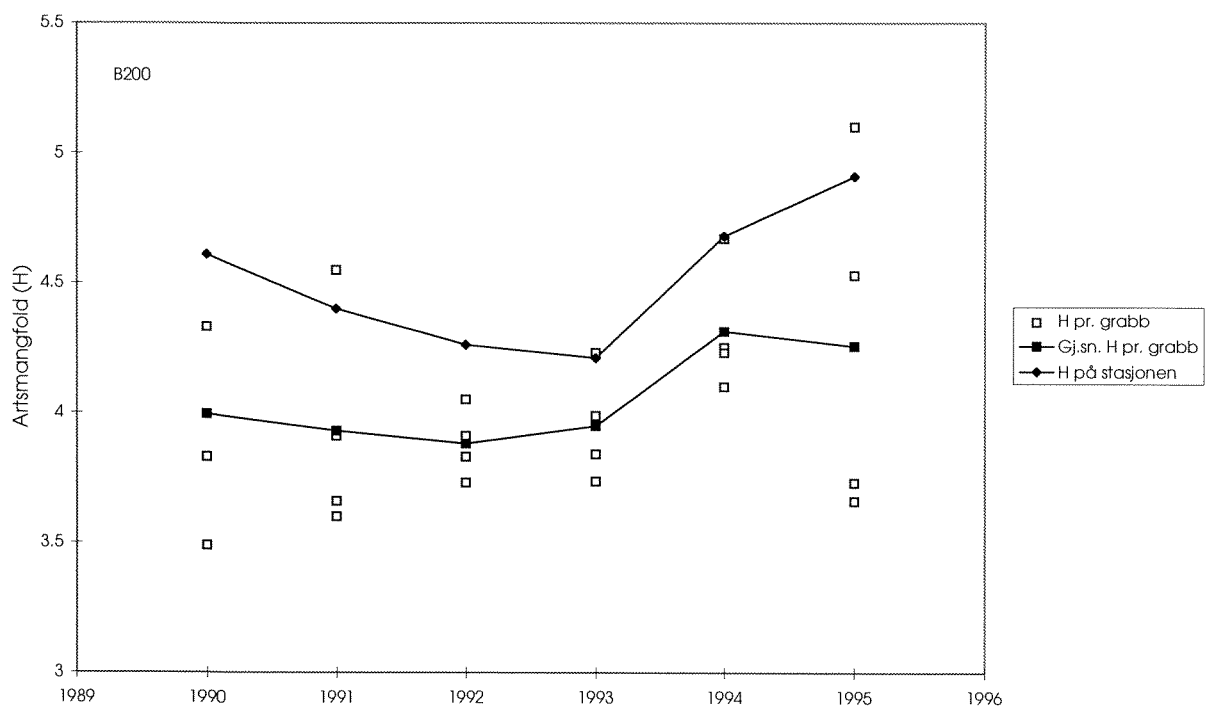
**Figur 21.** Individtall på stasjon B100 i 1990-1995.



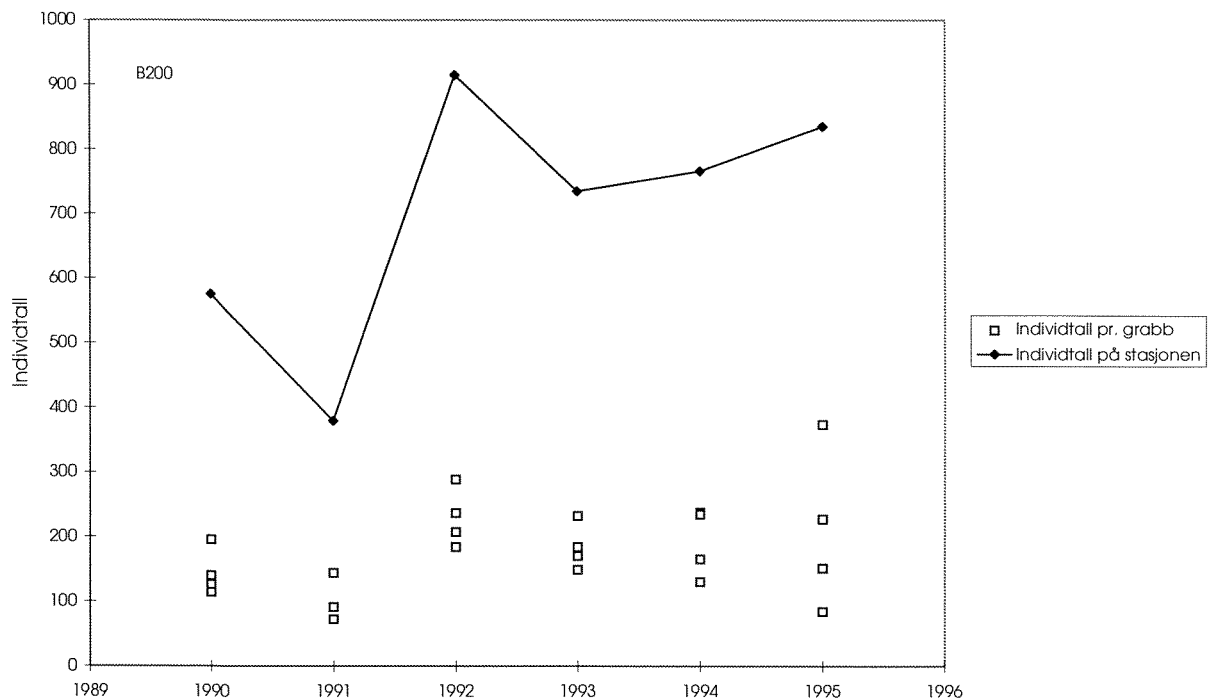
**Figur 22.** Artsmangfold (H) på stasjon B190 i 1990-1995.



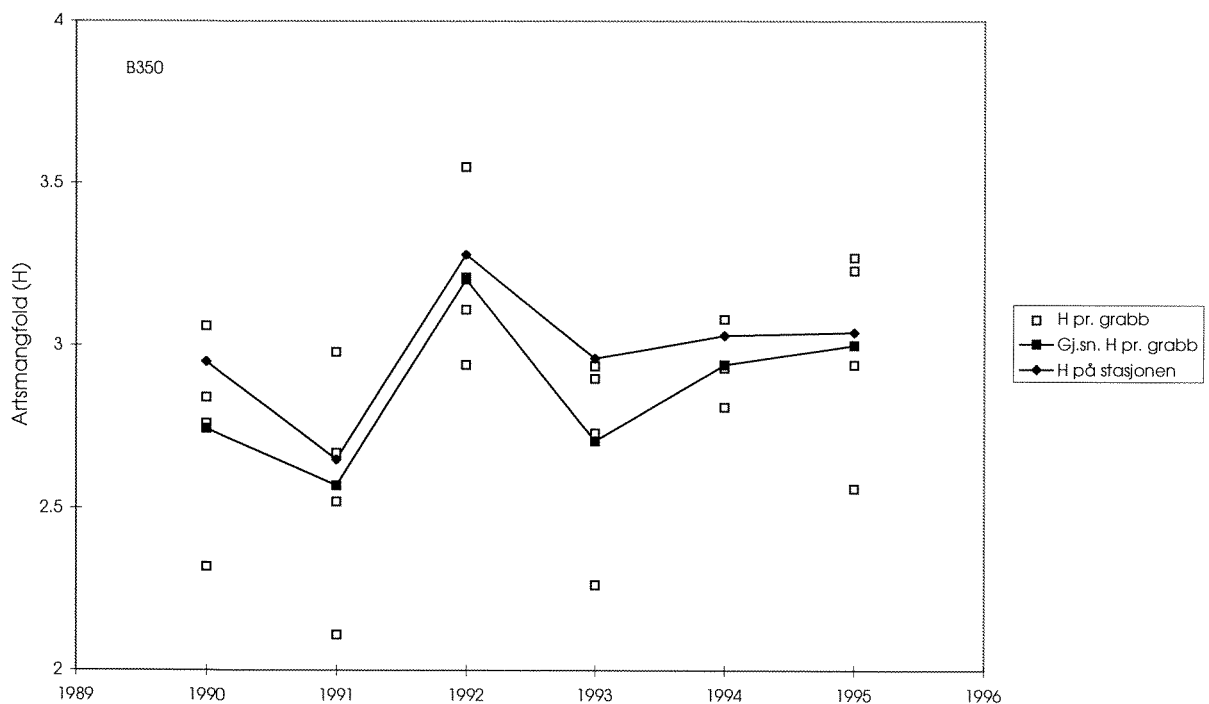
Figur 23. Individtall på stasjon B190 i 1990-1995.



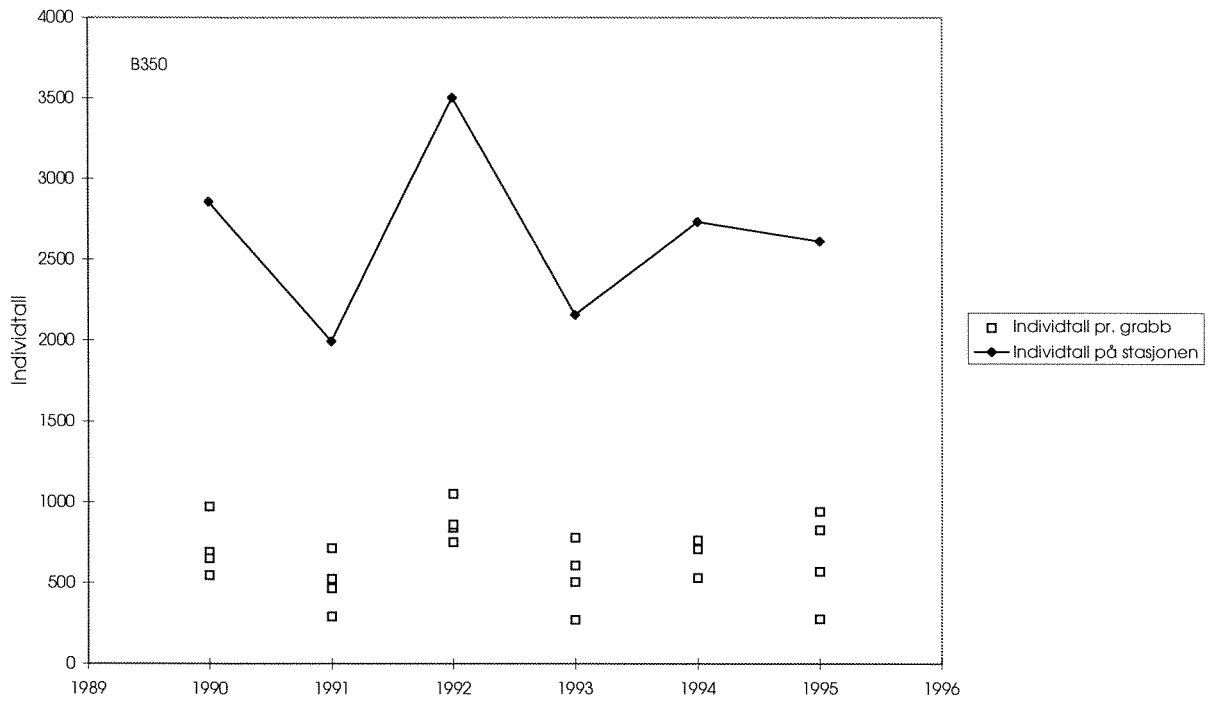
Figur 24. Artsmangfold (H) på stasjon B200 i 1990-1995.



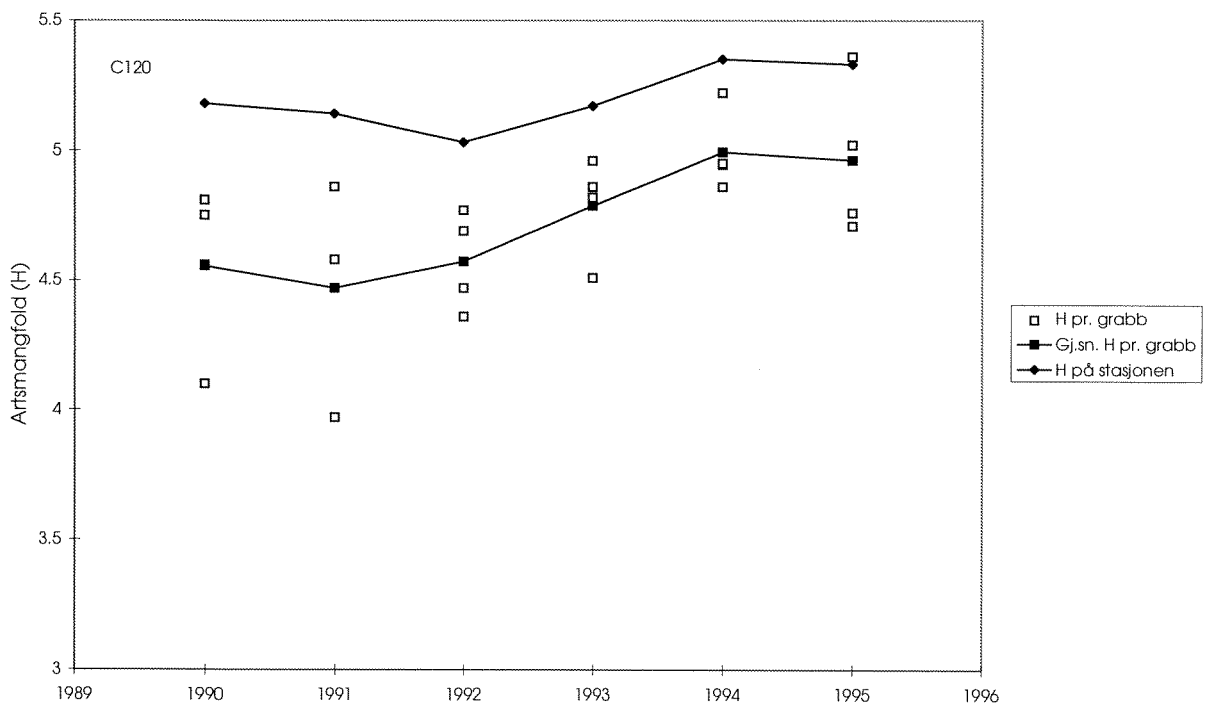
Figur 25. Individtall på stasjon B200 i 1990-1995.



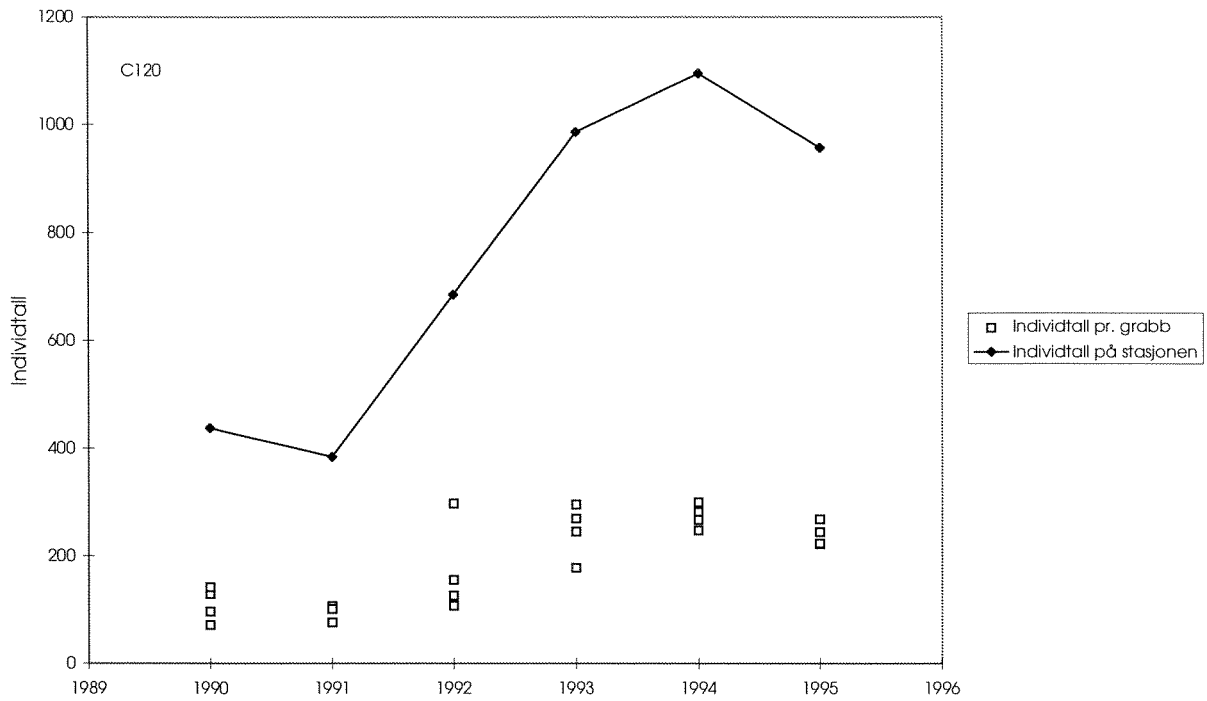
Figur 26. Artsmangfold (H) på stasjon B350 i 1990-1995.



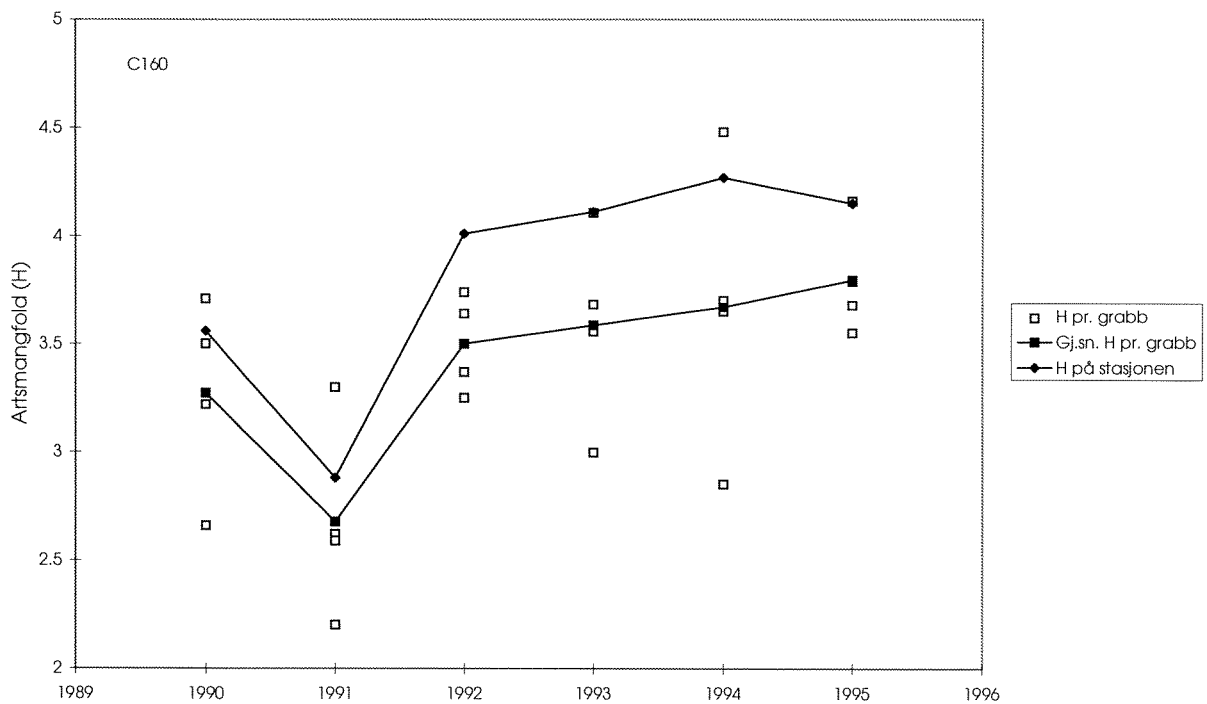
**Figur 27.** Individtall på stasjon B350 i 1990-1995.



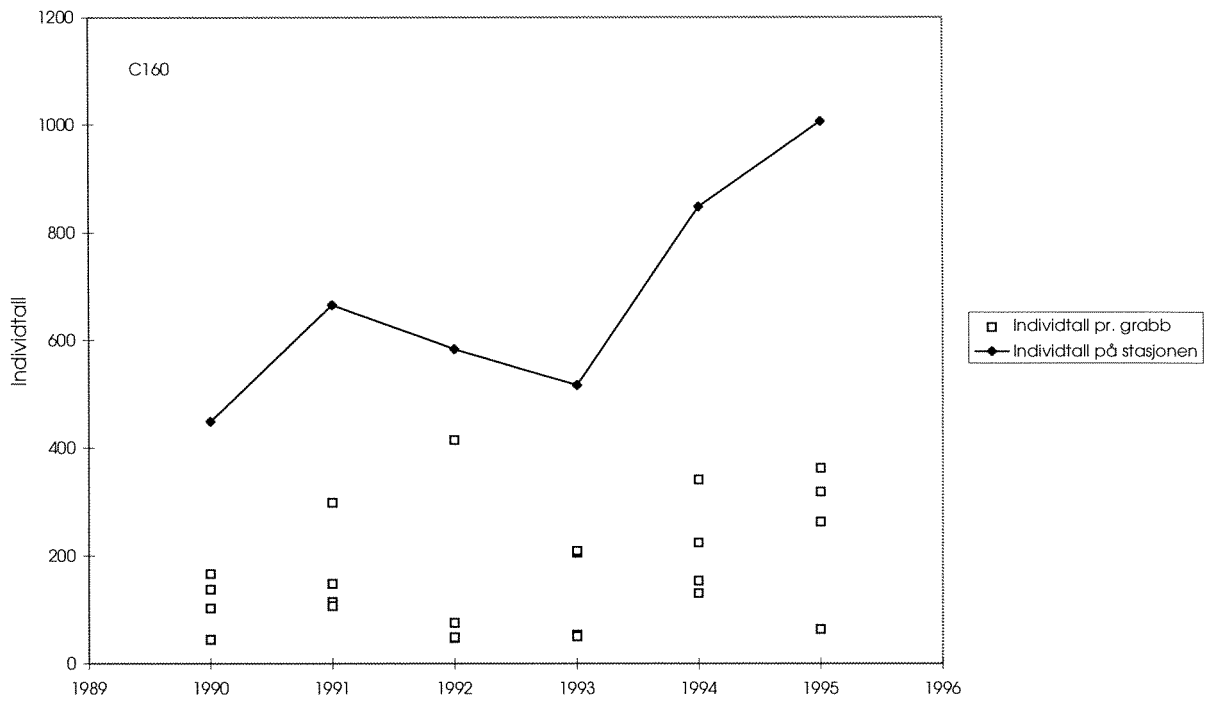
**Figur 28.** Artsmangfold (H) på stasjon C120 i 1990-1995.



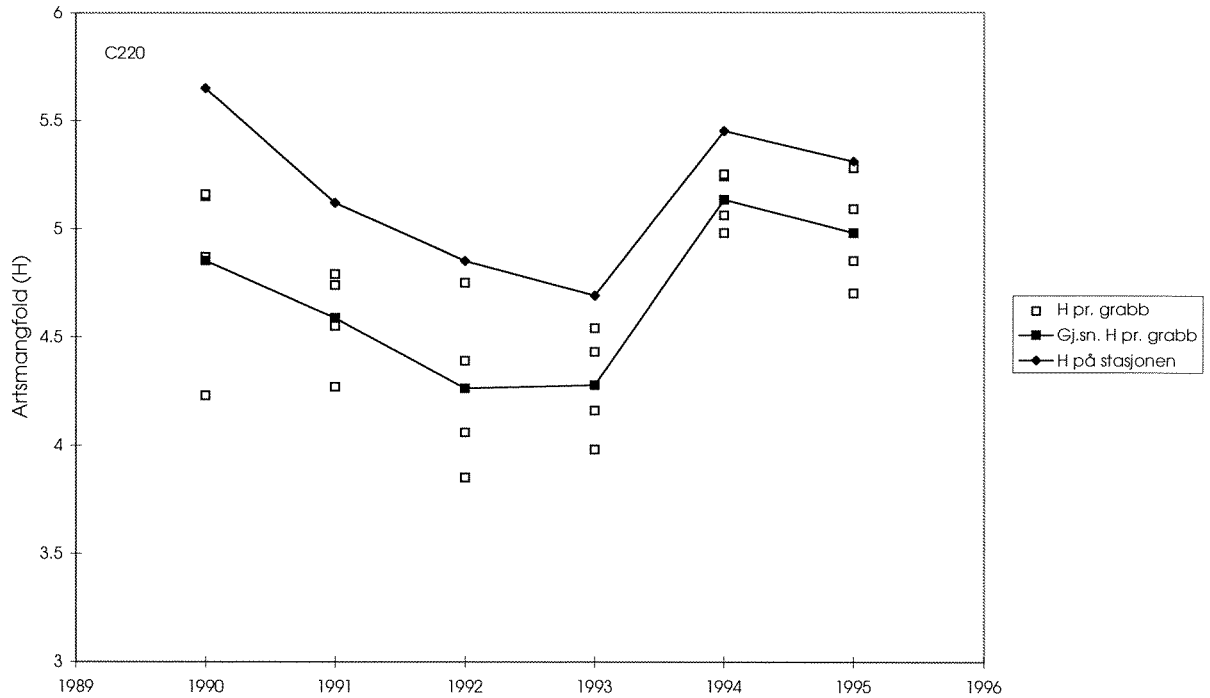
**Figur 29.** Individtall på stasjon C120 i 1990-1995.



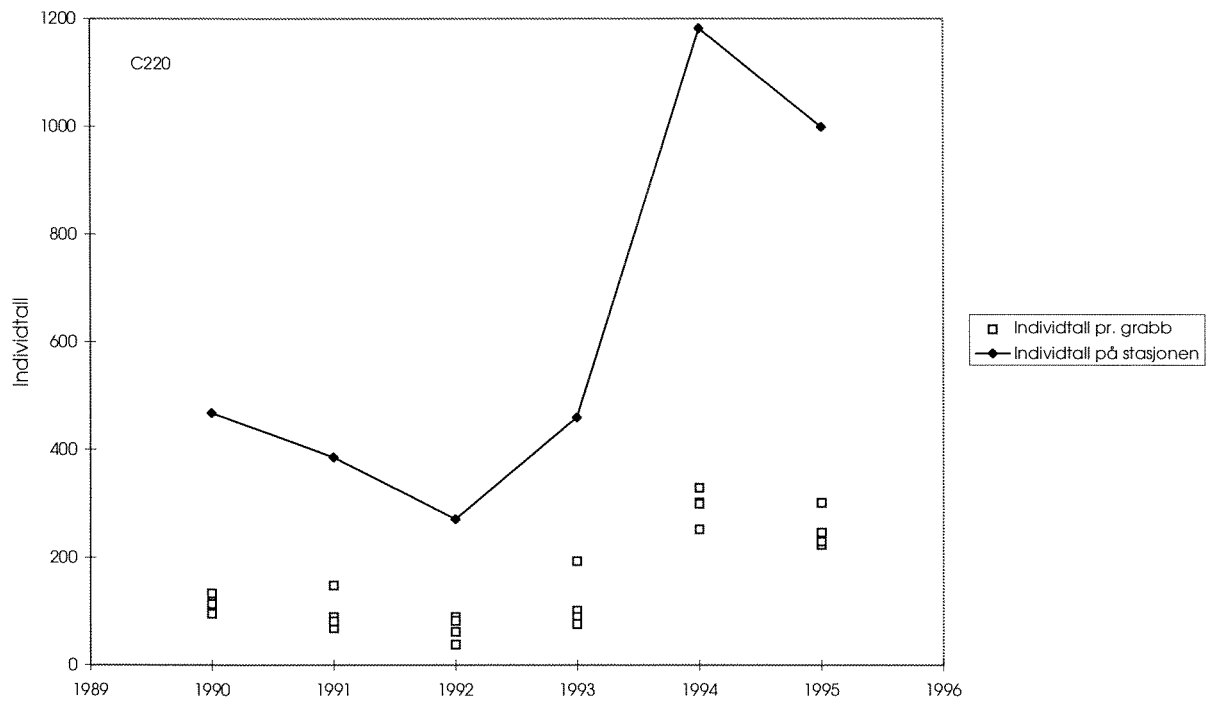
**Figur 30.** Artsmangfold (H) på stasjon C160 i 1990-1995.



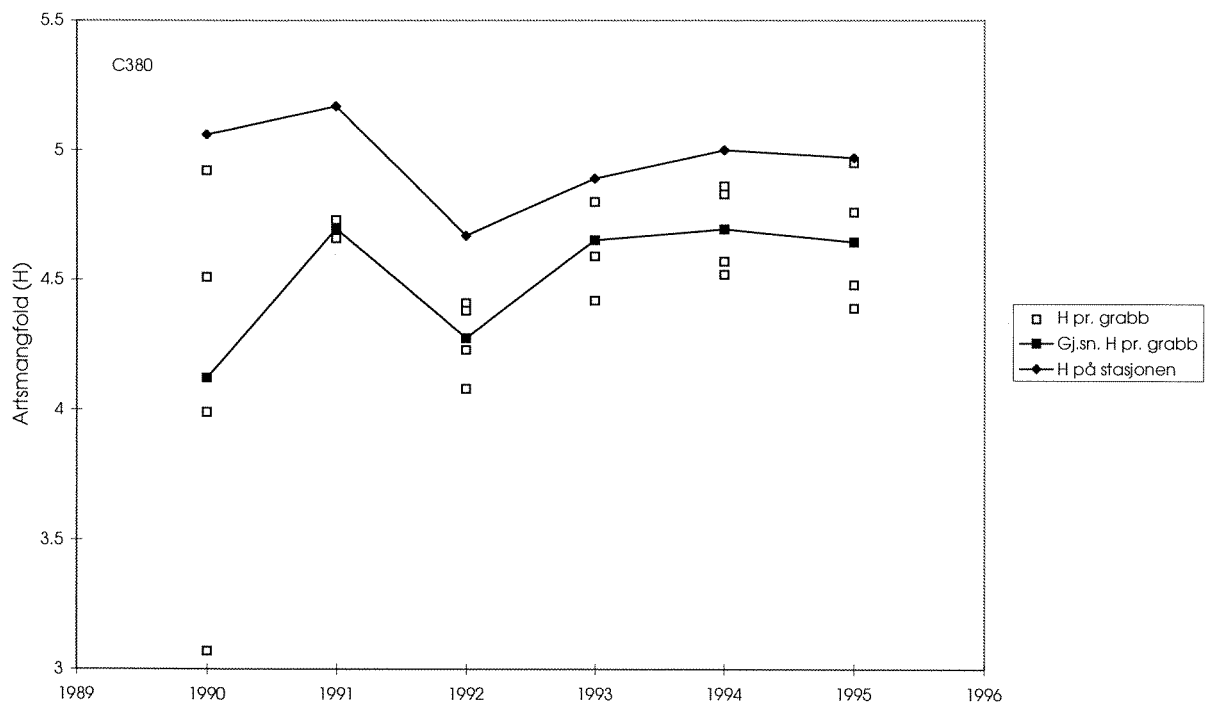
Figur 31. Individtall på stasjon C160 i 1990-1995.



Figur 32. Artsmangfold (H) på stasjon C220 i 1990-1995.

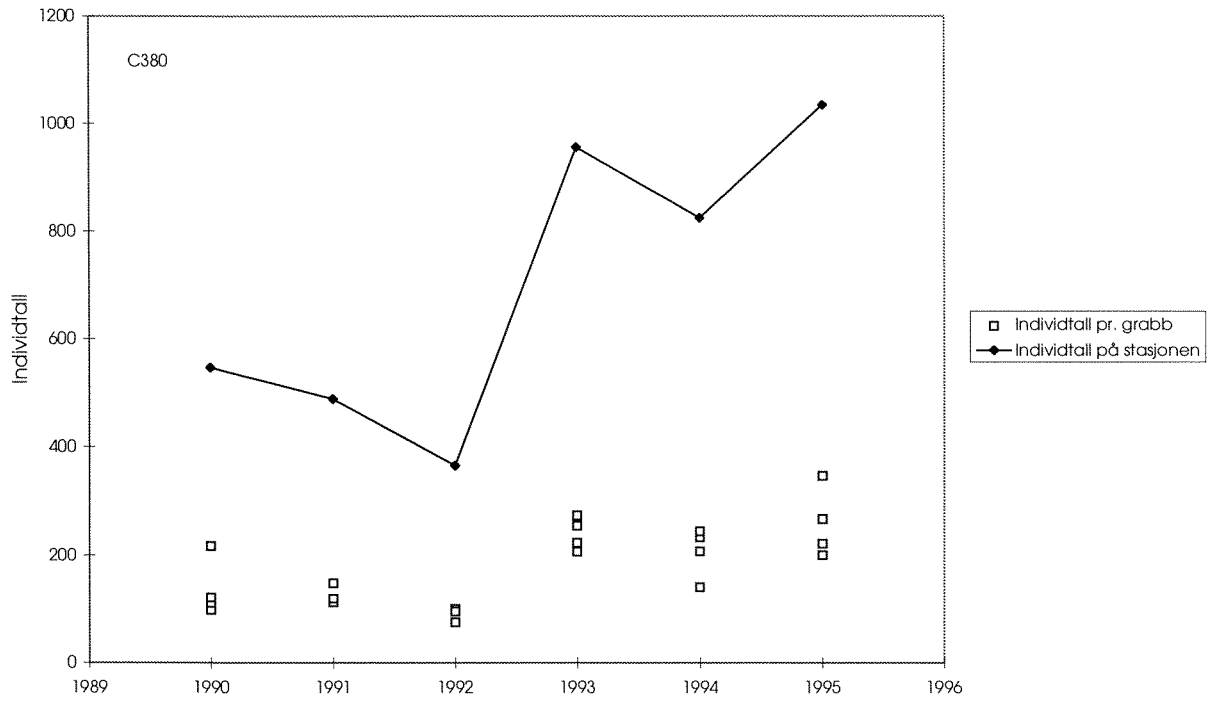


Figur 33. Individtall på stasjon C220 i 1990-1995.

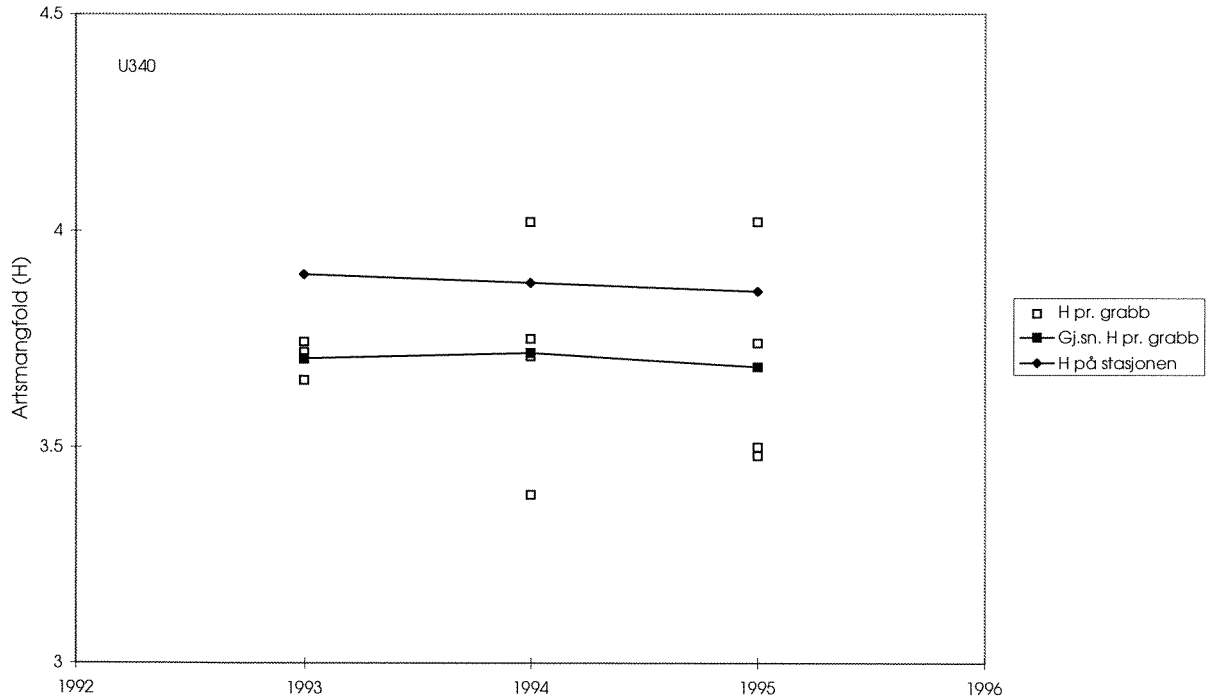


Figur 34. Artsmangfold (H) på stasjon C380 i 1990-1995.

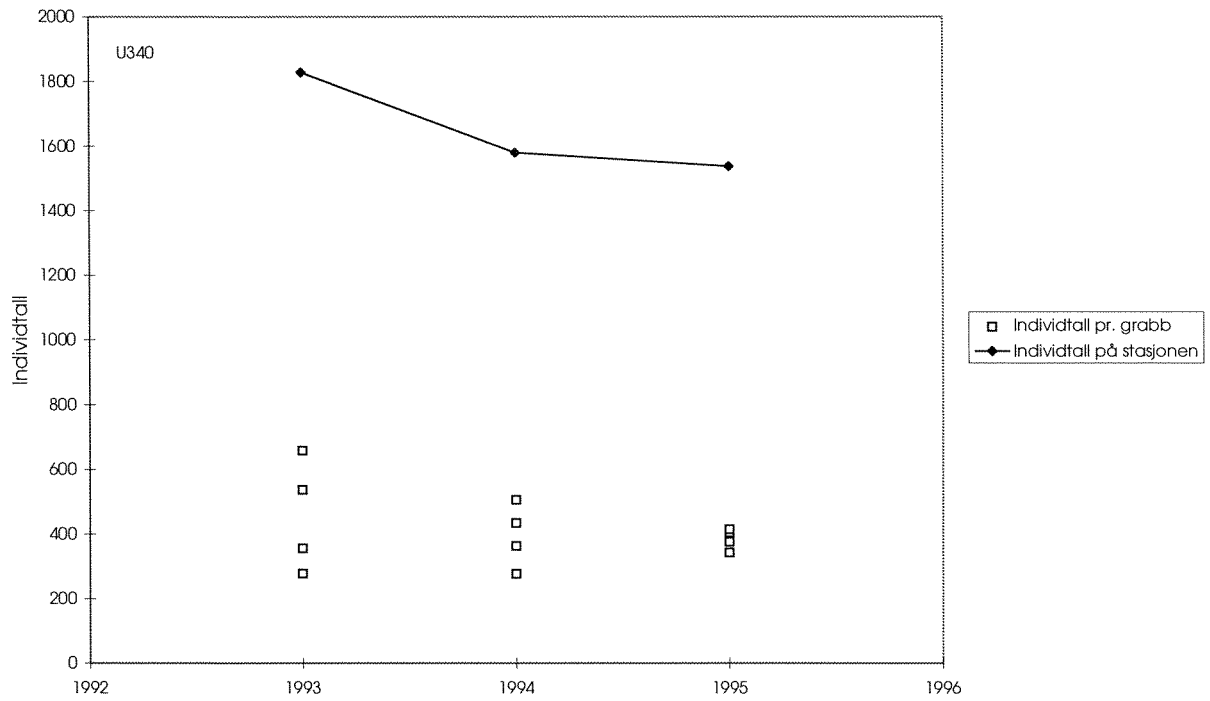




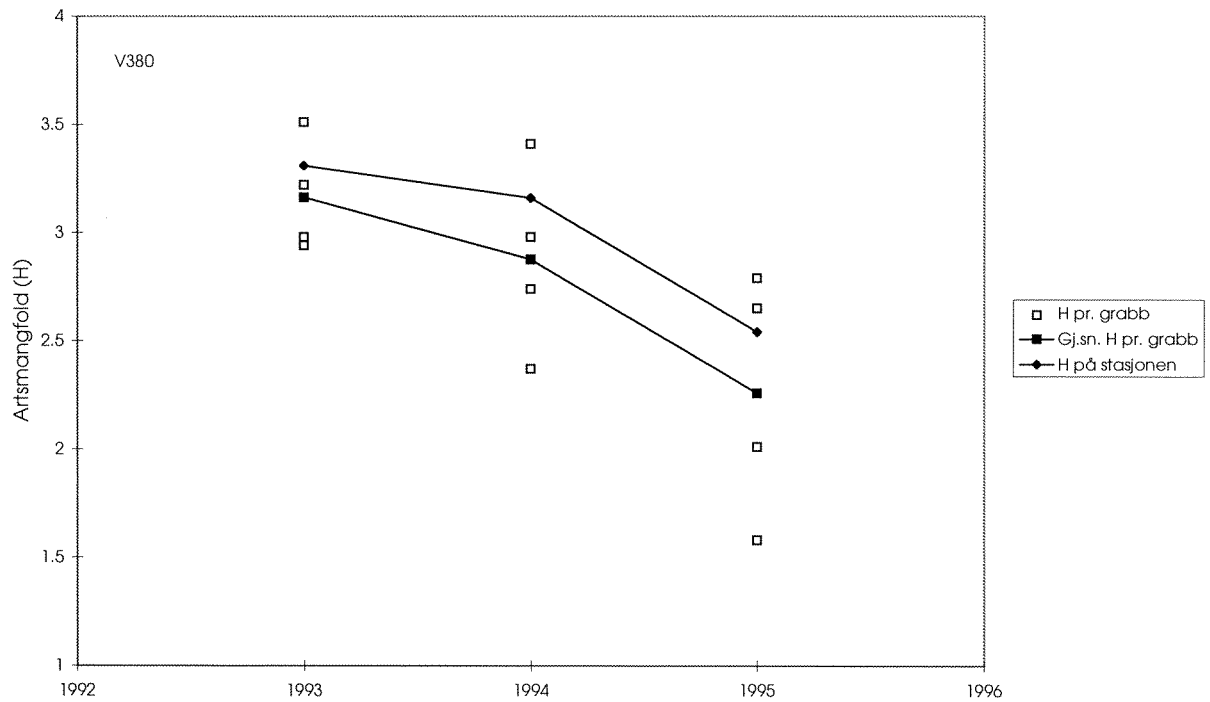
Figur 35. Individtall på stasjon C380 i 1990-1995.



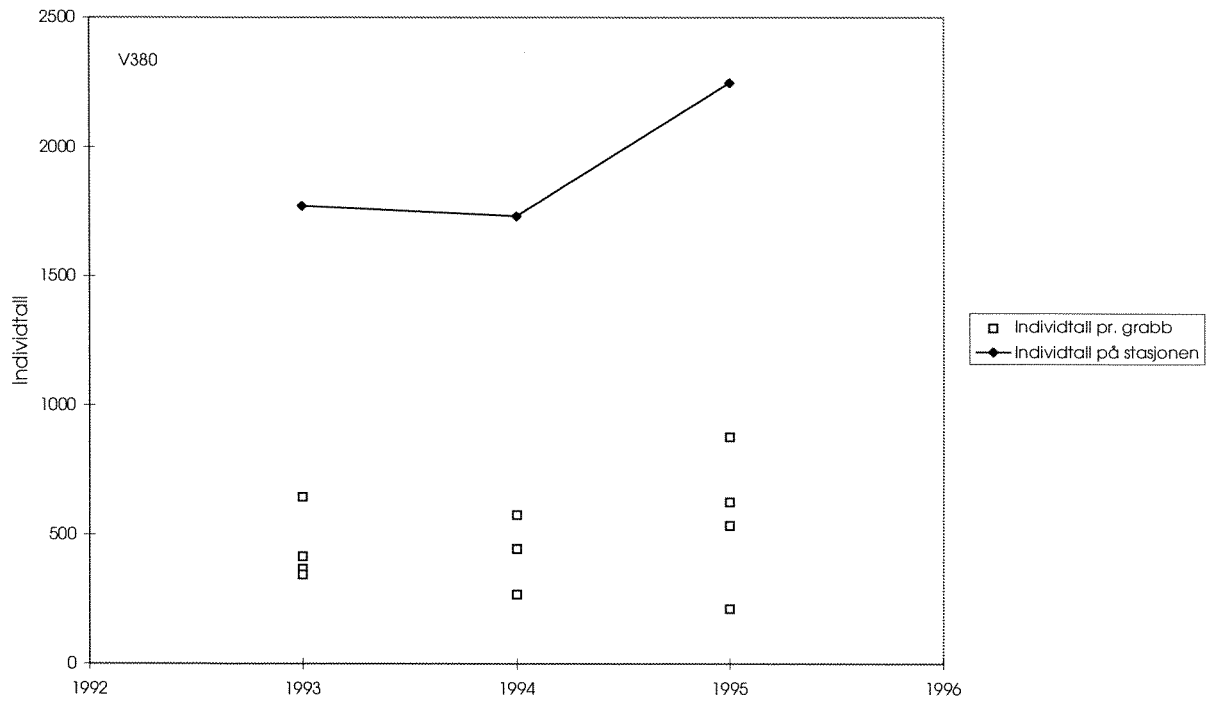
Figur 36. Artsmangfold (H) på stasjon U340 i 1990-1995.



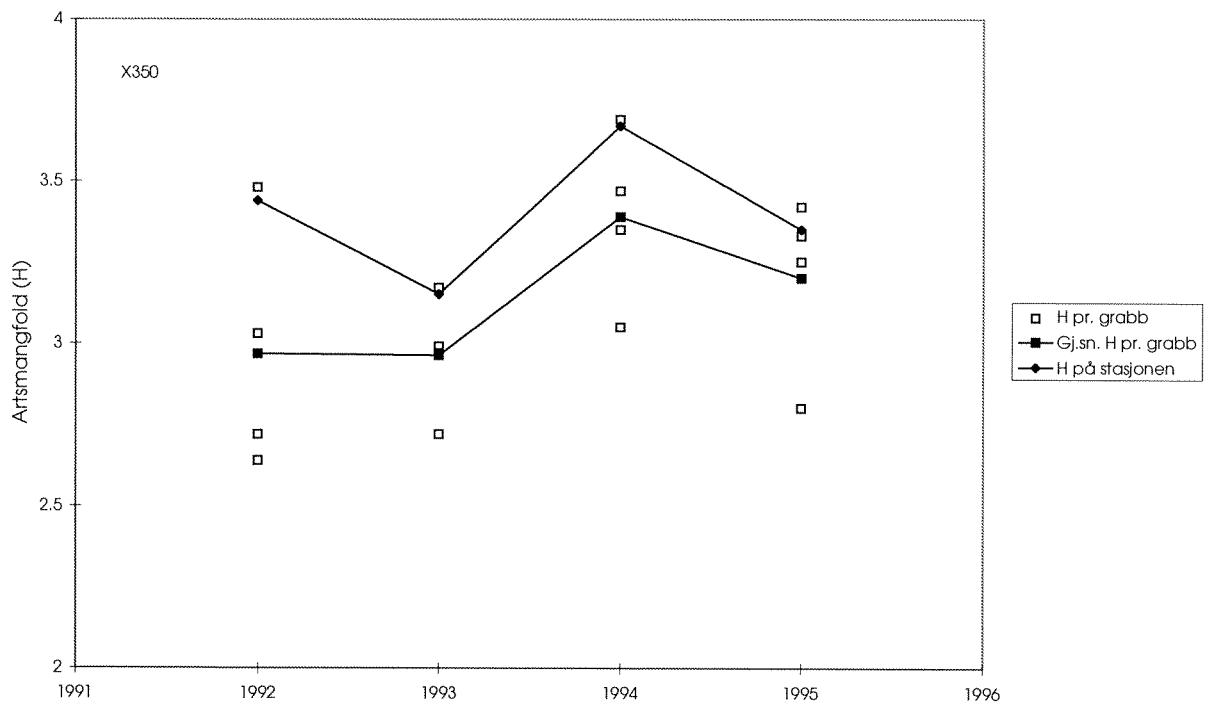
Figur 37. Individtall på stasjon U340 i 1990-1995.



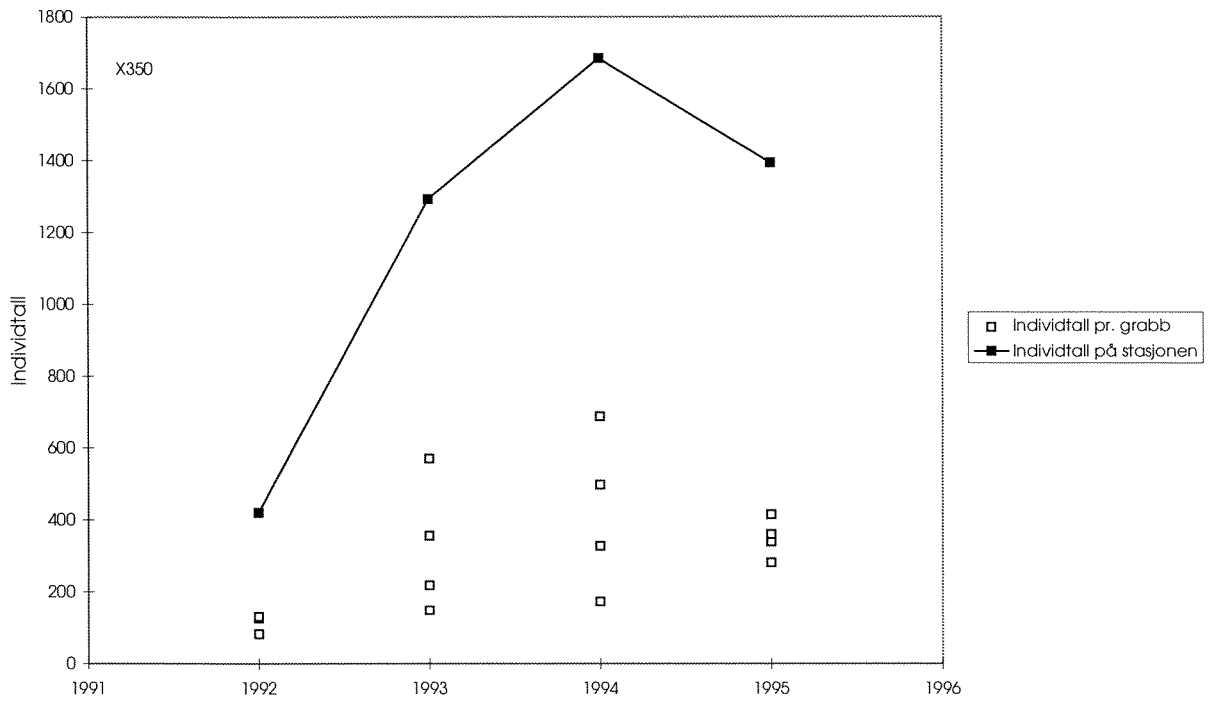
Figur 38. Artsmangfold (H) på stasjon V380 i 1990-1995.



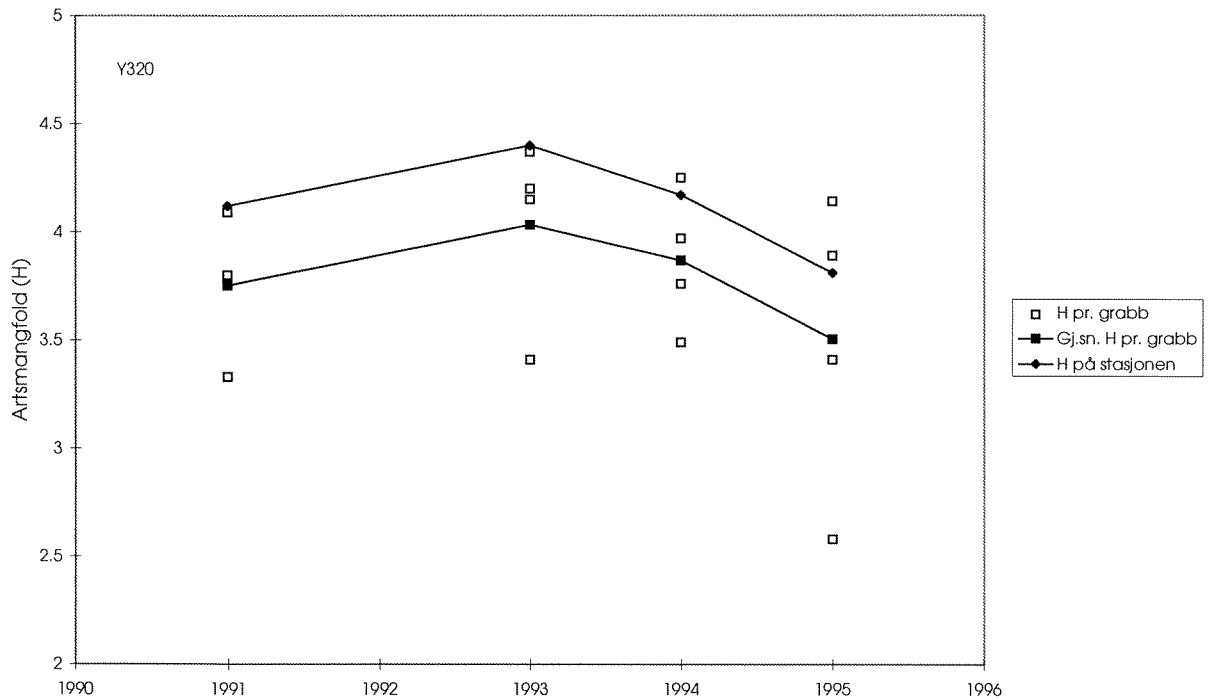
Figur 39. Individttall på stasjon V380 i 1990-1995.



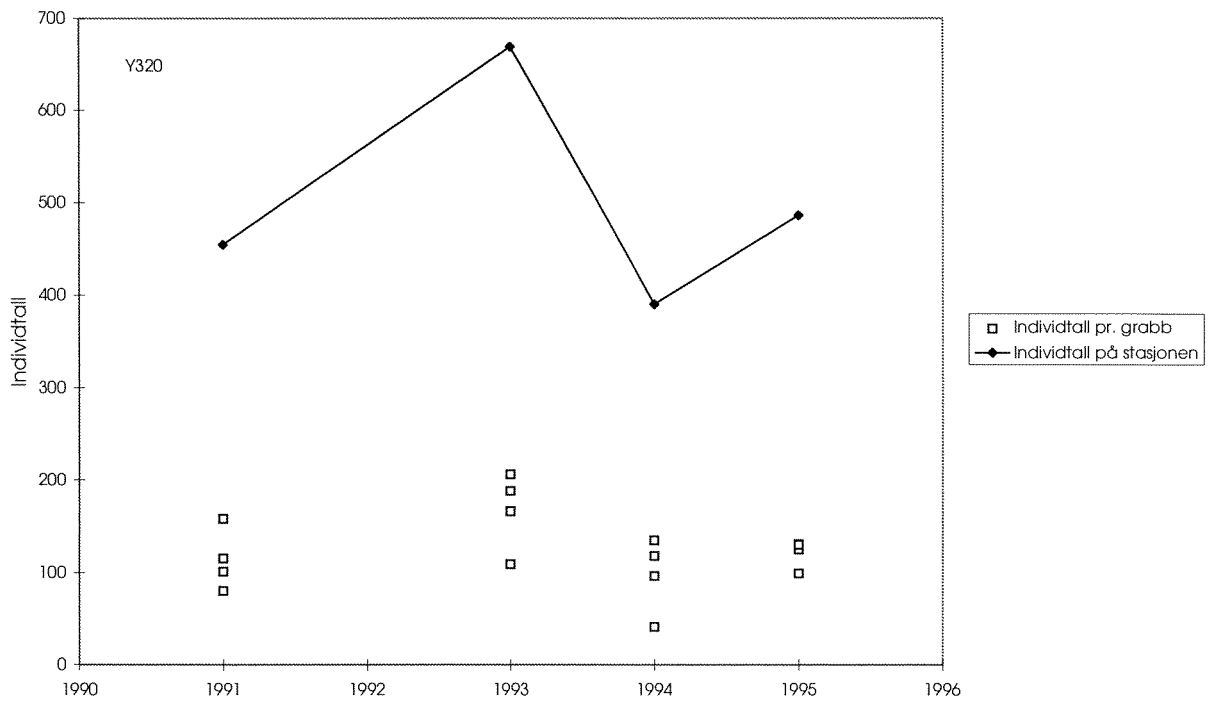
Figur 40. Artsmangfold (H) på stasjon X350 i 1990-1995.



Figur 41. Individtall på stasjon X350 i 1990-1995.



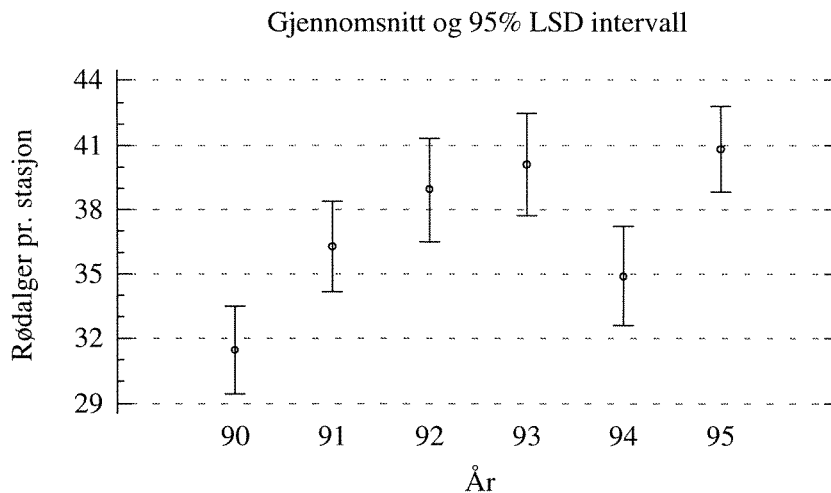
Figur 42. Artsmangfold (H) på stasjon Y230 i 1990-1995.



**Figur 43.** Individtall på stasjon Y320 i 1990-1995.

## Vedlegg C. Hardbunn - Transekt - Alger

### Rødalger - ANOVA / MULTIPLE RANGE - TESTER



**Figur 44.** Gjennomsnittlig antall arter rødalger registrert pr.stasjon fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene.

#### ANOVA Table for RED by Year

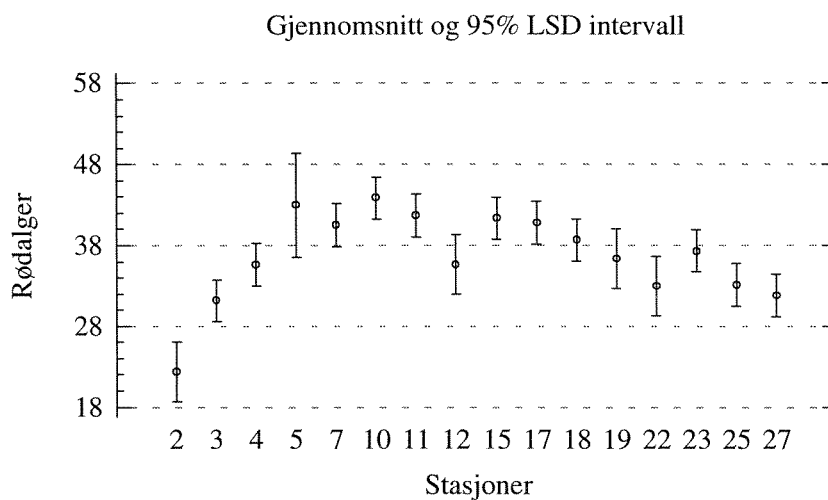
Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	896.187	5	179.237	5.67	0.0002
Within groups	2305.76	73	31.5858		
Total (Corr.)	3201.95	78			

#### Multiple Range Tests for RED by Year

Method: 95.0 percent LSD

Year	Count	Mean	Homogeneous Groups
90	15	31.4667	X
94	12	34.9167	XX
91	14	36.2857	XX
92	11	38.9091	XXX
93	11	40.0909	XX
95	16	40.8125	X

## Rødalger - ANOVA / MULTIPLE RANGE - TESTER



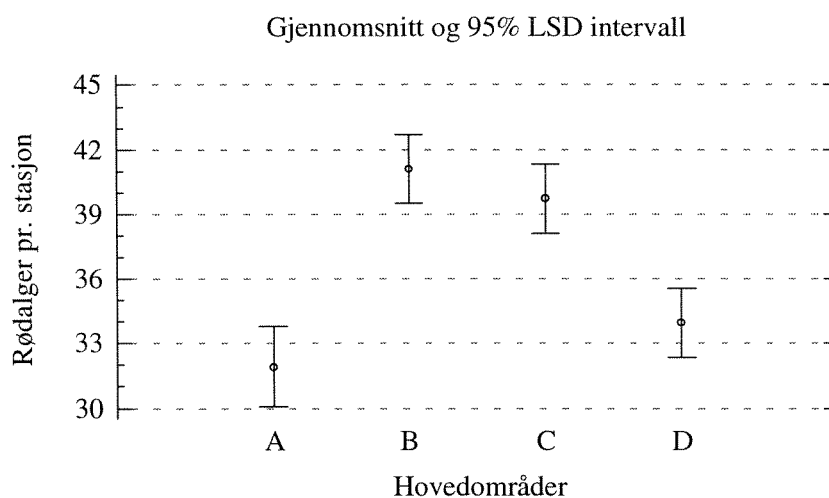
**Figur 45.** Gjennomsnittlig antall arter rødalger registrert pr.stasjon over perioden 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

### ANOVA Table for RED by Stasjon

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1901.62	15	126.774	6.14	0.0000
Within groups	1300.33	63	20.6402		
Total (Corr.)	3201.95	78			

### Multiple Range Tests for RED by Stasjon

Method: 95.0 percent LSD			
Stasjon	Count	Mean	Homogeneous Groups
2	3	22.3333	X
3	6	31.1667	X
27	6	31.8333	X
22	3	33.0	XXX
25	6	33.1667	XX
4	6	35.6667	XXXX
12	3	35.6667	XXXXX
19	3	36.3333	XXXXX
23	6	37.3333	XXXX
18	6	38.6667	XXXX
7	6	40.5	XXX
17	6	40.8333	XXX
15	6	41.3333	XX
11	6	41.6667	XX
5	1	43.0	XXXXX
10	6	43.8333	X

**Rødalger - ANOVA / MULTIPLE RANGE - TESTER**

**Figur 46.** Gjennomsnittlig antall arter rødalger registrert pr.stasjon innen hovedområdene fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

**ANOVA Table for RED by Area**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1111.96	3	370.655	13.30	0.0000
Within groups	2089.99	75	27.8665		
Total (Corr.)	3201.95	78			

**Multiple Range Tests for RED by Area**

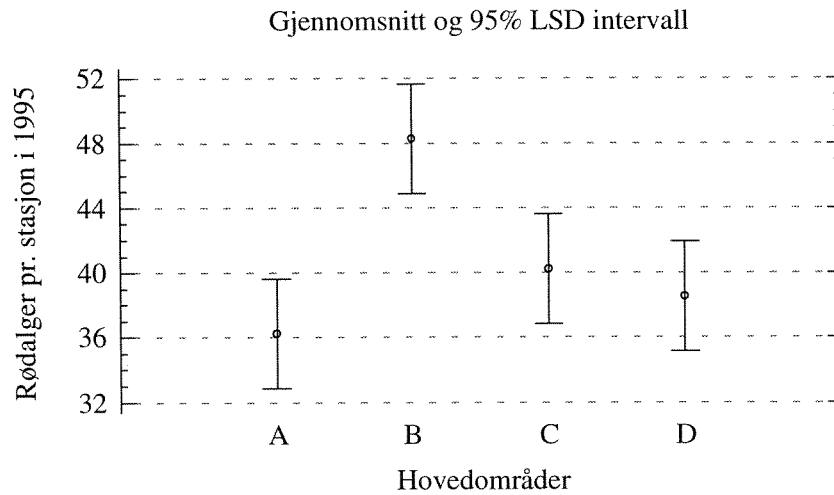
Method: 95.0 percent LSD			
Area	Count	Mean	Homogeneous Groups
A	16	31.9375	X
D	21	33.9524	X
C	21	39.7143	X
B	21	41.0952	X

Contrast	Difference	+/- Limits
A - B	*-9.15774	3.48967
A - C	*-7.77679	3.48967
A - D	-2.01488	3.48967
B - C	1.38095	3.24533
B - D	*7.14286	3.24533
C - D	*5.7619	3.24533

\* denotes a statistically significant difference.



**Rødalger** - ANOVA / MULTIPLE RANGE - TESTER

**Figur 47.** Gjennomsnittlig antall arter rødalger registrert pr.stasjon innen hovedområdene i 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

**ANOVA Table for RED by Area**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	327.188	3	109.063	5.61	0.0122
Within groups	233.25	12	19.4375		
Total (Corr.)	560.438	15			

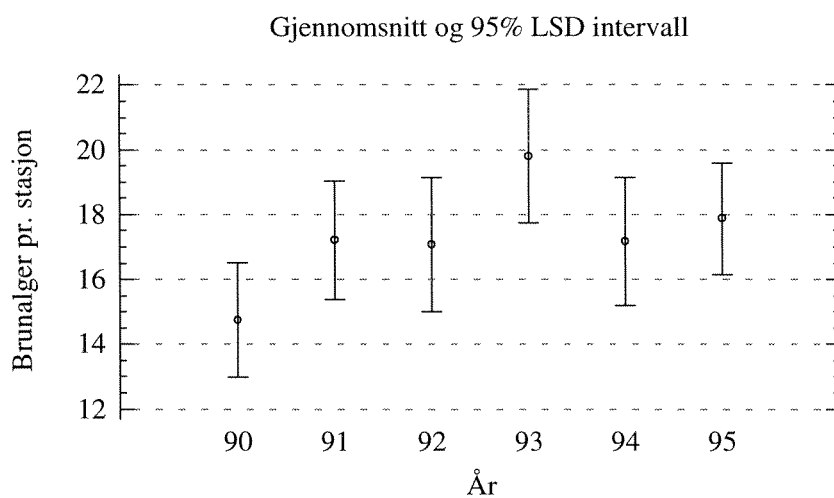
**Multiple Range Tests for RED by Area**

Method: 95.0 percent LSD			
Area	Count	Mean	Homogeneous Groups
A	4	36.25	X
D	4	38.5	X
C	4	40.25	X
B	4	48.25	X

Contrast	Difference	+/- Limits
A - B	*-12.0	6.79244
A - C	-4.0	6.79244
A - D	-2.25	6.79244
B - C	*8.0	6.79244
B - D	*9.75	6.79244
C - D	1.75	6.79244

\* denotes a statistically significant difference.

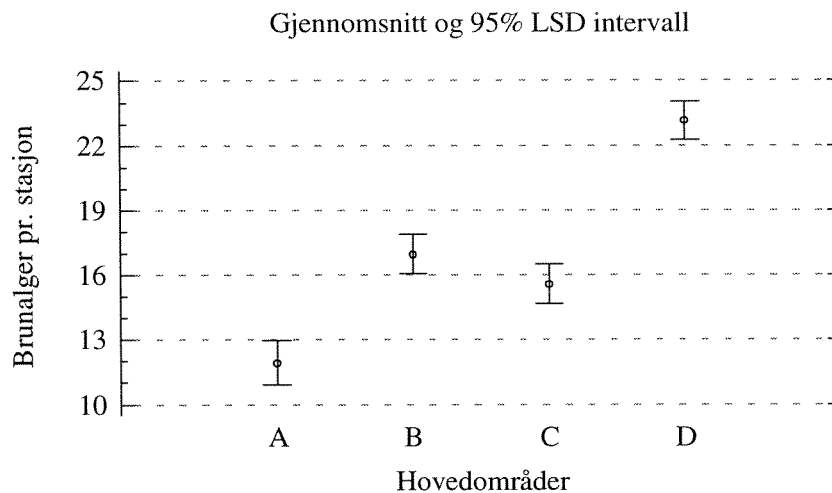
**Brunalger - ANOVA / MULTIPLE RANGE - TESTER**

**Figur 48.** Gjennomsnittlig antall arter brunalger registrert pr.stasjon fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene.

**ANOVA Table for BROWN by Year**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	174.089	5	34.8178	1.47	0.2090
Within groups	1725.25	73	23.6336		
Total (Corr.)	1899.34	78			

## Brunalger - ANOVA / MULTIPLE RANGE - TESTER



**Figur 49.** Gjennomsnittlig antall arter brunalger registrert pr.stasjon innen hovedområdene fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

### ANOVA Table for BROWN by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1241.74	3	413.913	47.21	0.0000
Within groups	657.604	75	8.76806		
Total (Corr.)	1899.34	78			

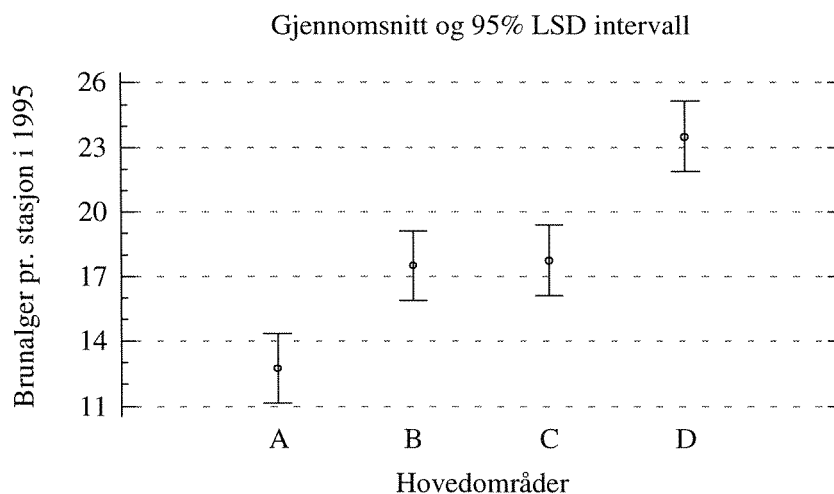
### Multiple Range Tests for BROWN by Area

Method: 95.0 percent LSD			
Area	Count	Mean	Homogeneous Groups
A	16	11.9375	X
C	21	15.5714	X
B	21	16.9524	X
D	21	23.1429	X

Contrast	Difference	+/- Limits
A - B	*-5.01488	1.95747
A - C	*-3.63393	1.95747
A - D	*-11.2054	1.95747
B - C	1.38095	1.82041
B - D	*-6.19048	1.82041
C - D	*-7.57143	1.82041

\* denotes a statistically significant difference.

**Brunalger - ANOVA / MULTIPLE RANGE - TESTER**

**Figur 50.** Gjennomsnittlig antall arter rødalger registrert pr.stasjon innen hovedområdene i 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

**ANOVA Table for BROWN by Area**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	232.25	3	77.4167	17.36	0.0001
Within groups	53.5	12	4.45833		
Total (Corr.)	285.75	15			

**Multiple Range Tests for BROWN by Area**

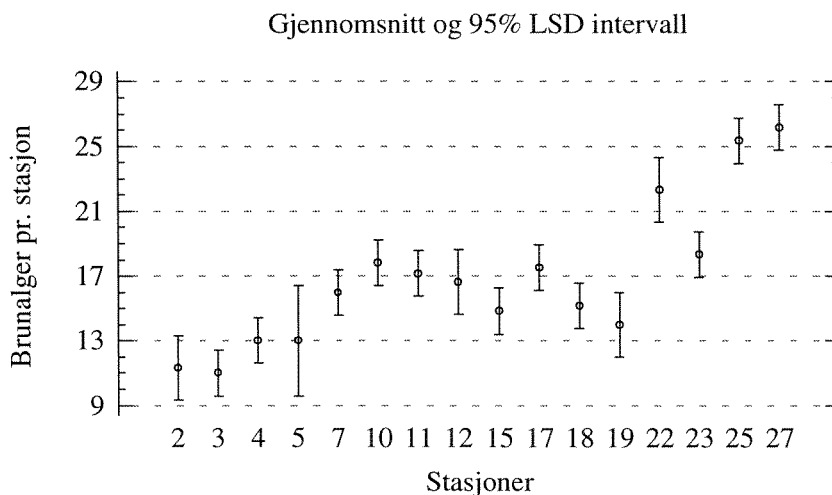
Method: 95.0 percent LSD			
Area	Count	Mean	Homogeneous Groups
A	4	12.75	X
B	4	17.5	X
C	4	17.75	X
D	4	23.5	X

Contrast	Difference	+/- Limits
A - B	*-4.75	3.25306
A - C	*-5.0	3.25306
A - D	*-10.75	3.25306
B - C	-0.25	3.25306
B - D	*-6.0	3.25306
C - D	*-5.75	3.25306

\* denotes a statistically significant difference.

**Brunalger - ANOVA / MULTIPLE RANGE - TESTER**



**Figur 51.** Gjennomsnittlig antall arter brunalger registrert pr.stasjon over perioden 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

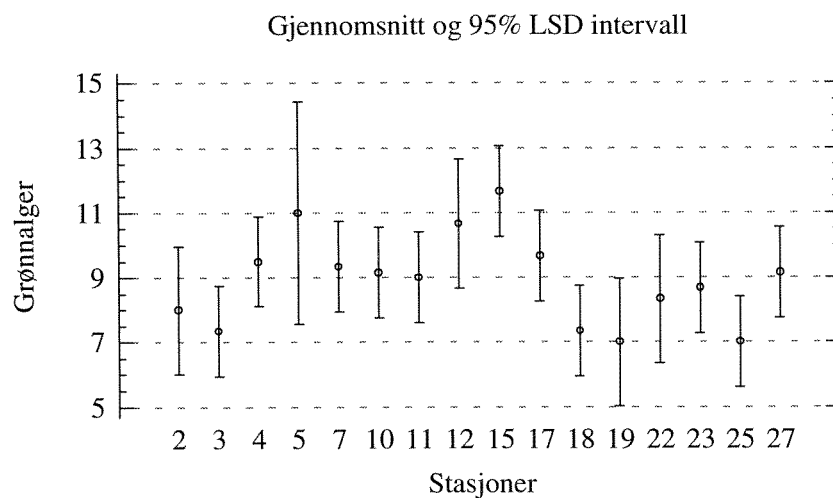
**ANOVA Table for BROWN by Stasjon**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1525.01	15	101.667	17.11	0.0000
Within groups	374.333	63	5.9418		
Total (Corr.)	1899.34	78			

**Multiple Range Tests for BROWN by Stasjon**

Method: 95.0 percent LSD			
Stasjon	Count	Mean	Homogeneous Groups
3	6	11.0	X
2	3	11.3333	X
5	1	13.0	XXXXXX
4	6	13.0	XX
19	3	14.0	XXX
15	6	14.8333	XXX
18	6	15.1667	XXXX
7	6	16.0	XXXX
12	3	16.6667	XXXX
11	6	17.1667	XXXX
17	6	17.5	XXX
10	6	17.8333	XX
23	6	18.3333	X
22	3	22.3333	X
25	6	25.3333	XX
27	6	26.1667	X

## Grønnalger - ANOVA / MULTIPLE RANGE - TESTER

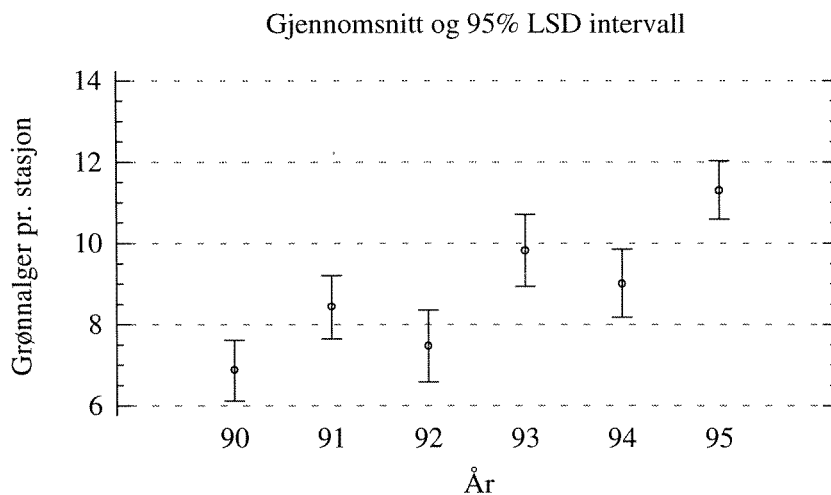


**Figur 52.** Gjennomsnittlig antall arter grønnalger registrert pr.stasjon over perioden 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

### ANOVA Table for GREEN by Stasjon

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	132.968	15	8.86456	1.51	0.1299
Within groups	370.5	63	5.88095		
Total (Corr.)	503.468	78			

## Grønnalger - ANOVA / MULTIPLE RANGE - TESTER



**Figur 53.** Gjennomsnittlig antall arter grønnalger registrert pr.stasjon fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

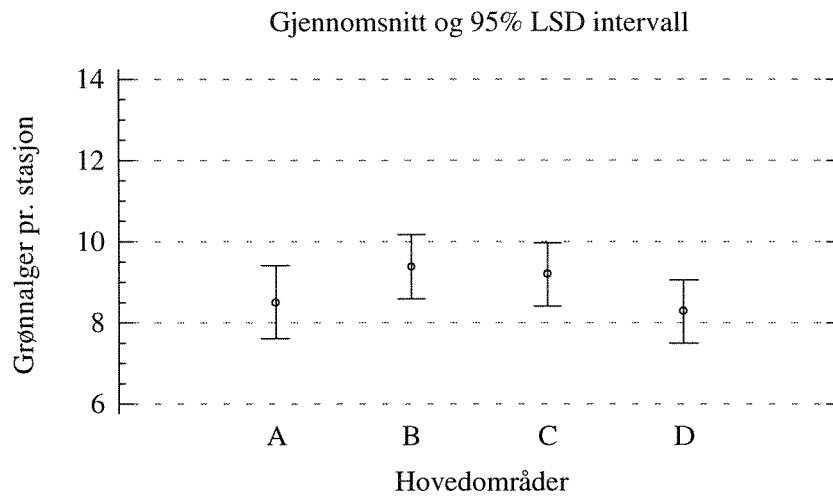
### ANOVA Table for GREEN by Year

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	190.505	5	38.1011	8.89	0.0000
Within groups	312.963	73	4.28716		
Total (Corr.)	503.468	78			

### Multiple Range Tests for GREEN by Year

Method: 95.0 percent LSD			
Year	Count	Mean	Homogeneous Groups
90	15	6.86667	X
92	11	7.45455	XX
91	14	8.42857	XX
94	12	9.0	XX
93	11	9.81818	XX
95	16	11.3125	X

## Grønnalger - ANOVA / MULTIPLE RANGE - TESTER



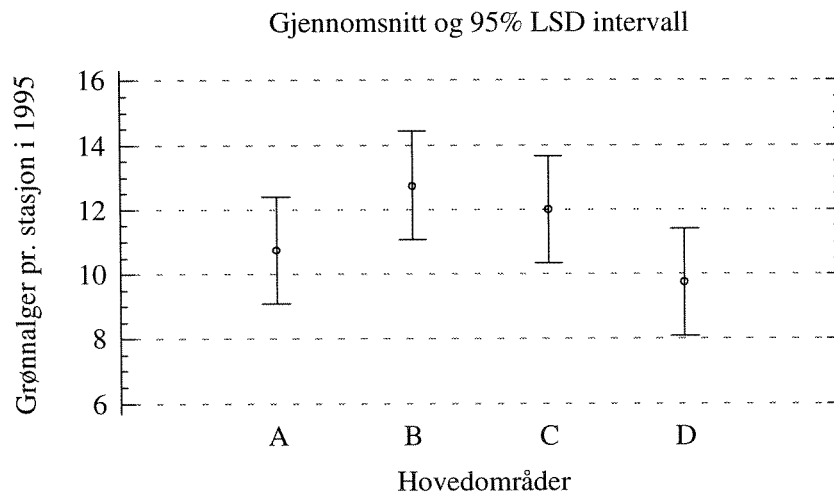
**Figur 54.** Gjennomsnittlig antall arter grønnalger registrert pr.stasjon innen hovedområdene fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene.

### ANOVA Table for GREEN by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	16.9922	3	5.66405	0.87	0.4589
Within groups	486.476	75	6.48635		
Total (Corr.)	503.468	78			



## Grønnalger - ANOVA / MULTIPLE RANGE - TESTER



**Figur 55.** Gjennomsnittlig antall arter grønnalger registrert pr.stasjon innen hovedområdene i 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

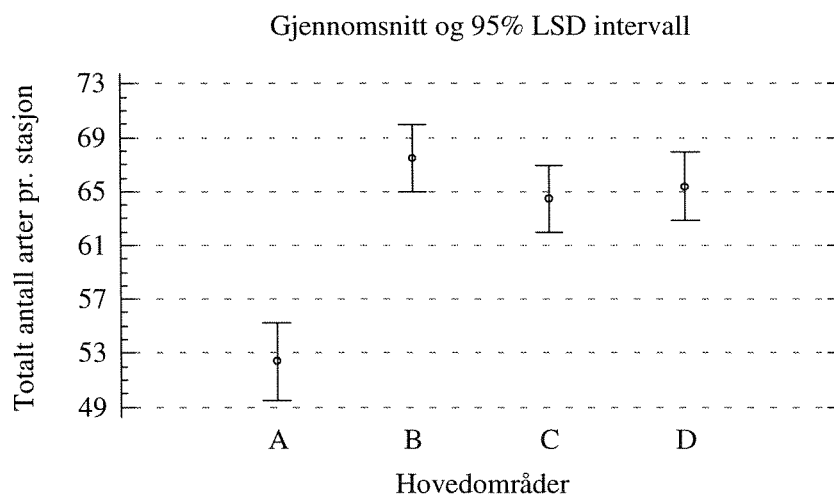
### ANOVA Table for GREEN by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	21.1875	3	7.0625	1.51	0.2630
Within groups	56.25	12	4.6875		
Total (Corr.)	77.4375	15			

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**ARTER - ANOVA / MULTIPLE RANGE - TESTER**


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**Figur 56.** Gjennomsnitt av total antall arter registrert pr.stasjon innen hvert av hovedområdene fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene.

**ANOVA Table for Arter by Area**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	2382.71	3	794.238	12.19	0.0000
Within groups	4887.08	75	65.1611		
Total (Corr.)	7269.8	78			

**Multiple Range Tests for Arter by Area**

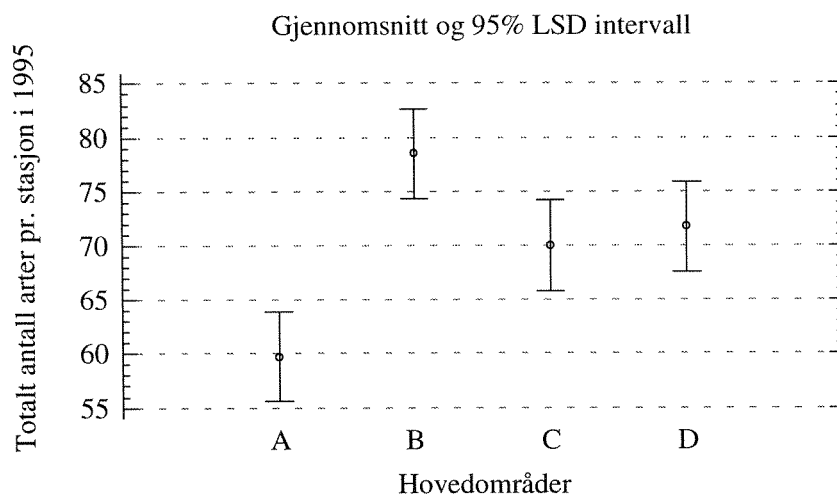
Method: 95.0 percent LSD			
Area	Count	Mean	Homogeneous Groups
A	16	52.375	X
C	21	64.4762	X
D	21	65.381	X
B	21	67.4286	X

Contrast	Difference	+/- Limits
A - B	*-15.0536	5.33627
A - C	*-12.1012	5.33627
A - D	*-13.006	5.33627
B - C	2.95238	4.96263
B - D	2.04762	4.96263
C - D	-0.904762	4.96263

\* denotes a statistically significant difference.

## ARTER - ANOVA / MULTIPLE RANGE - TESTER



**Figur 57.** Gjennomsnitt av total antall arter registrert pr.stasjon i 1995 innen hvert av hovedområdene. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

### ANOVA Table for Arter by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	721.5	3	240.5	8.23	0.0030
Within groups	350.5	12	29.2083		
Total (Corr.)	1072.0	15			

### Multiple Range Tests for Arter by Area

Method: 95.0 percent LSD			
Area	Count	Mean	Homogeneous Groups
A	4	59.75	X
C	4	70.0	X
D	4	71.75	XX
B	4	78.5	X

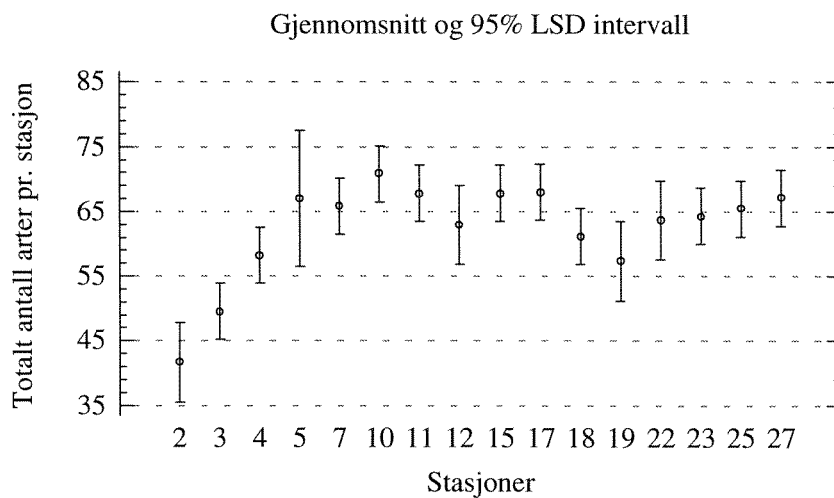
Contrast	Difference	+/- Limits
A - B	*-18.75	8.32644
A - C	*-10.25	8.32644
A - D	*-12.0	8.32644
B - C	*8.5	8.32644
B - D	6.75	8.32644
C - D	-1.75	8.32644

\* denotes a statistically significant difference.

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**ARTER - ANOVA / MULTIPLE RANGE - TESTER**


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**Figur 58.** Gjennomsnitt av total antall arter registrert pr.stasjon fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene.

**ANOVA Table for Arter by Stasjon**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	3731.63	15	248.775	4.43	0.0000
Within groups	3538.17	63	56.1614		
Total (Corr.)	7269.8	78			

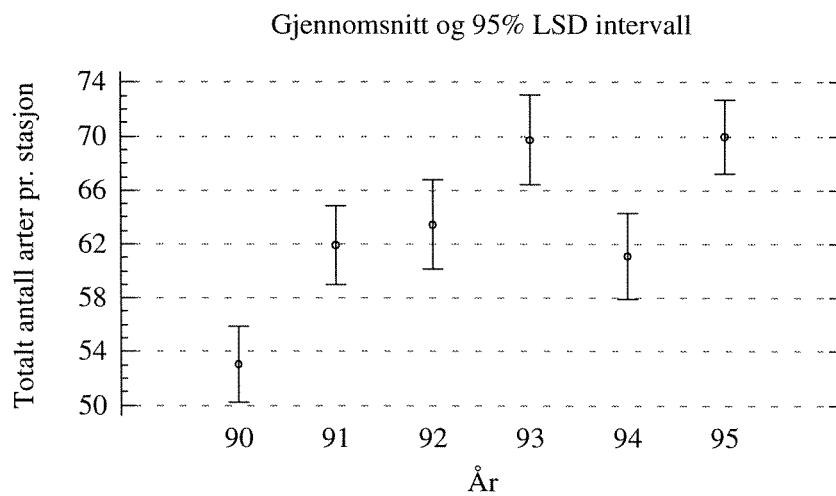
**Multiple Range Tests for Arter by Stasjon**

Method: 95.0 percent LSD			
Stasjon	Count	Mean	Homogeneous Groups
2	3	41.6667	X
3	6	49.5	XX
19	3	57.3333	XXX
4	6	58.1667	X
18	6	61.1667	XXX
12	3	63.0	XXXX
22	3	63.6667	XXXX
23	6	64.3333	XXXX
25	6	65.5	XXXX
7	6	65.8333	XXXX
5	1	67.0	XXXX
27	6	67.1667	XXX
11	6	67.8333	XXX
15	6	67.8333	XXX
17	6	68.0	XX
10	6	70.8333	X

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**ARTER - ANOVA / MULTIPLE RANGE - TESTER**


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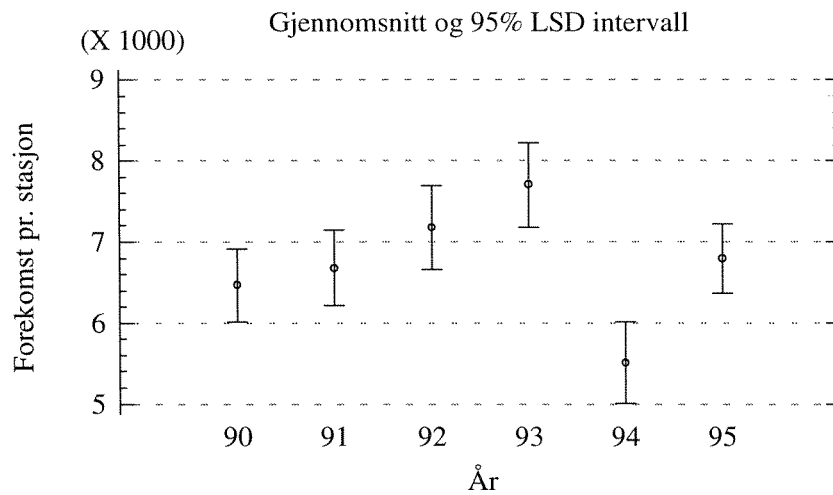
**Figur 59.** Gjennomsnitt av total antall arter registrert pr.år fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene.

**ANOVA Table for Arter by Year**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	2824.11	5	564.822	9.27	0.0000
Within groups	4445.69	73	60.8998		
Total (Corr.)	7269.8	78			

**Multiple Range Tests for Arter by Year**

Method: 95.0 percent LSD			
Year	Count	Mean	Homogeneous Groups
90	15	53.0667	X
94	12	61.0833	X
91	14	61.9286	X
92	11	63.4545	XX
93	11	69.7273	XX
95	16	70.0	X

**Forekomst - ANOVA / MULTIPLE RANGE - TESTER**

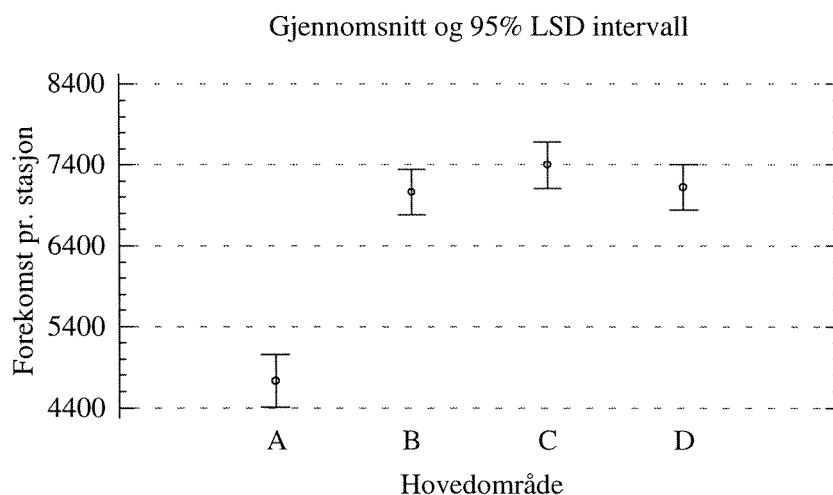
**Figur 60.** Gjennomsnittlig forekomst registrert pr.år fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

**ANOVA Table for Forekomst by Year**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	3.14429E7	5	6.28858E6	4.19	0.0021
Within groups	1.09689E8	73	1.50259E6		
Total (Corr.)	1.41132E8	78			

**Multiple Range Tests for Forekomst by Year**

Method: 95.0 percent LSD			
Year	Count	Mean	Homogeneous Groups
94	12	5512.69	X
90	15	6463.68	X
91	14	6679.3	X
95	16	6796.54	XX
92	11	7176.77	XX
93	11	7701.55	X

**Forekomst** - ANOVA / MULTIPLE RANGE - TESTER

**Figur 61.** Gjennomsnittlig forekomst registrert pr.stasjon innen hvert av hovedområdene fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene.

**ANOVA Table for Forekomst by Area**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	7.83367E7	3	2.61122E7	31.19	0.0000
Within groups	6.27956E7	75	837275.0		
Total (Corr.)	1.41132E8	78			

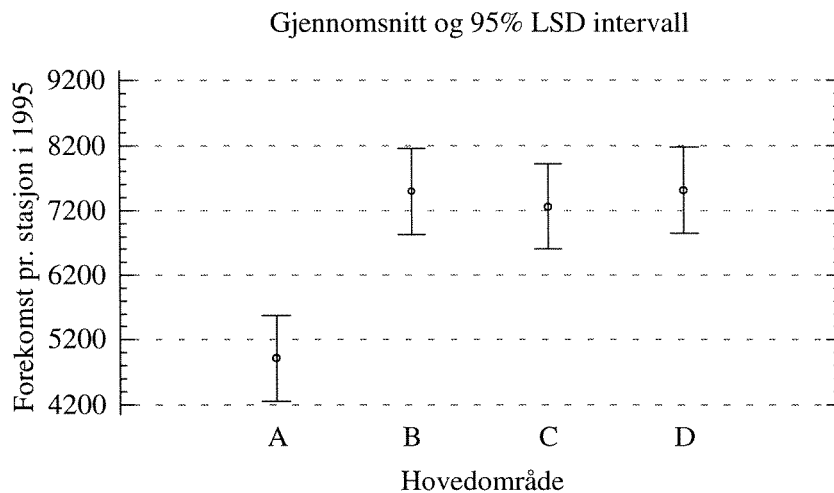
**Multiple Range Tests for Forekomst by Area**

Method: 95.0 percent LSD			
Area	Count	Mean	Homogeneous Groups
A	16	4737.2	X
B	21	7068.3	X
D	21	7117.56	X
C	21	7396.45	X

Contrast	Difference	+/- Limits
A - B	*-2331.11	604.892
A - C	*-2659.26	604.892
A - D	*-2380.36	604.892
B - C	-328.151	562.538
B - D	-49.2585	562.538
C - D	278.892	562.538

\* denotes a statistically significant difference.

**Forekomst - ANOVA / MULTIPLE RANGE - TESTER**

**Figur 62.** Gjennomsnittlig forekomst registrert pr.stasjon i 1995 innen hvert av hovedområdene. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

**ANOVA Table for Forekomst by Area**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1.91906E7	3	6.39688E6	8.63	0.0025
Within groups	8.89643E6	12	741369.0		
Total (Corr.)	2.80871E7	15			

**Multiple Range Tests for Forekomst by Area**

Method: 95.0 percent LSD			
Area	Count	Mean	Homogeneous Groups
A	4	4907.63	X
C	4	7262.47	X
B	4	7499.28	X
D	4	7516.79	X

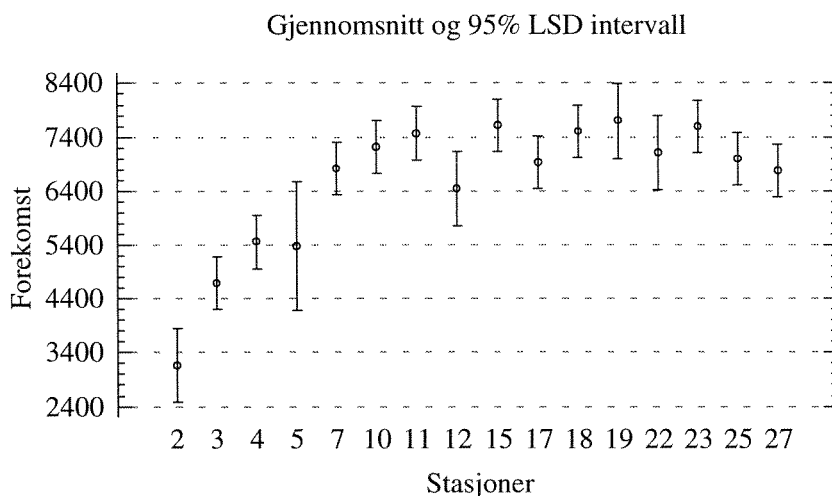
  

Contrast	Difference	+/- Limits
A - B	*-2591.64	1326.55
A - C	*-2354.84	1326.55
A - D	*-2609.16	1326.55
B - C	236.806	1326.55
B - D	-17.5188	1326.55
C - D	-254.325	1326.55

\* denotes a statistically significant difference.



**Forekomst - ANOVA / MULTIPLE RANGE - TESTER**



**Figur 63.** Gjennomsnittlig forekomst registrert pr.stasjon fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene.

**ANOVA Table for Forekomst by Stasjon**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	9.6093E7	15	6.4062E6	8.96	0.0000
Within groups	4.50392E7	63	714908.0		
Total (Corr.)	1.41132E8	78			

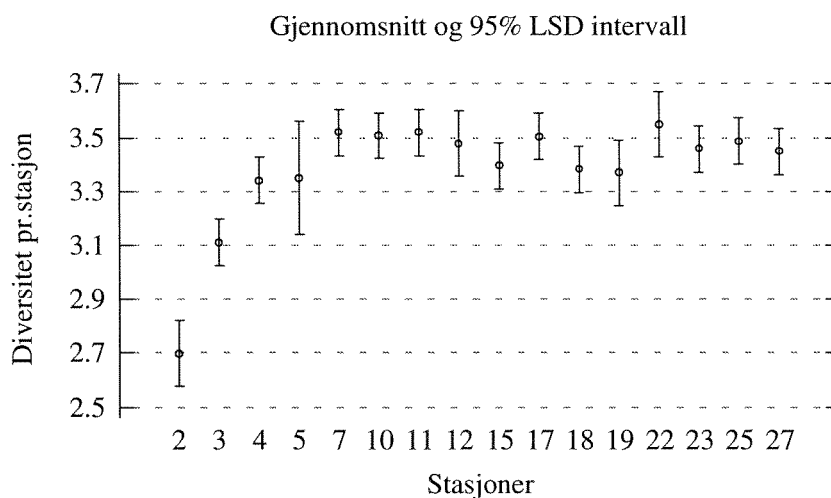
**Multiple Range Tests for Forekomst by Stasjon**

Method: 95.0 percent LSD			
Stasjon	Count	Mean	Homogeneous Groups
2	3	3162.33	X
3	6	4697.17	X
5	1	5388.42	XXX
4	6	5456.13	XX
12	3	6447.01	XXX
27	6	6763.43	XX
7	6	6826.32	XX
17	6	6925.07	XX
25	6	6998.79	XX
22	3	7102.14	XX
10	6	7220.24	X
11	6	7469.0	X
18	6	7502.68	X
23	6	7598.18	X
15	6	7614.41	X
19	3	7690.85	X

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**DIVERSITET - ANOVA / MULTIPLE RANGE - TESTER**


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**Figur 64.** Gjennomsnittlig diversitet pr.stasjon fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

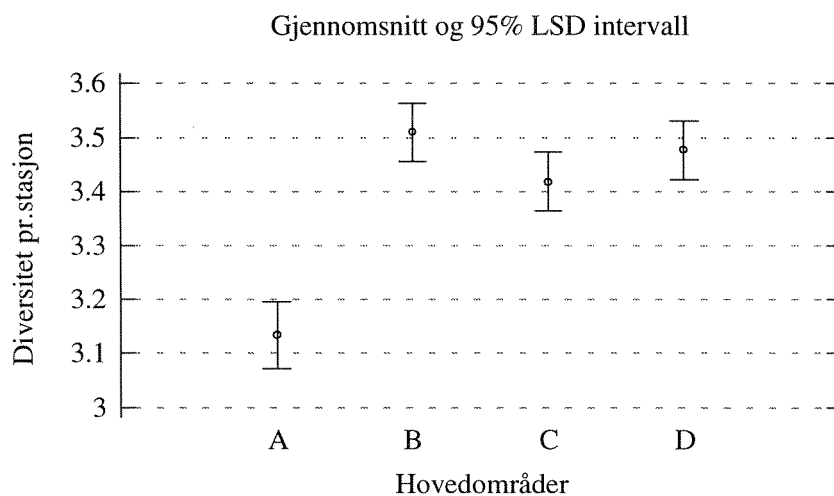
**ANOVA Table for Diversitet by Stasjon**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	2.48224	15	0.165483	7.43	0.0000
Within groups	1.40324	63	0.0222736		
Total (Corr.)	3.88548	78			

**Multiple Range Tests for Diversitet by Stasjon**

Method: 95.0 percent LSD			
Stasjon	Count	Mean	Homogeneous Groups
2	3	2.69791	X
3	6	3.10908	X
4	6	3.33977	X
5	1	3.34943	XXX
19	3	3.36914	XX
18	6	3.38113	XX
15	6	3.39498	XX
27	6	3.44795	XX
23	6	3.45802	XX
12	3	3.47692	XX
25	6	3.48687	XX
17	6	3.50355	XX
10	6	3.50735	XX
11	6	3.51878	X
7	6	3.51886	X
22	3	3.54863	XX

## DIVERSITET - ANOVA / MULTIPLE RANGE - TESTER



**Figur 65.** Gjennomsnittlig diversitet pr.stasjon innen hvert av hovedområdene fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

### ANOVA Table for Diversitet by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1.51769	3	0.505896	16.02	0.0000
Within groups	2.36779	75	0.0315705		
Total (Corr.)	3.88548	78			

### Multiple Range Tests for Diversitet by Area

Method: 95.0 percent LSD

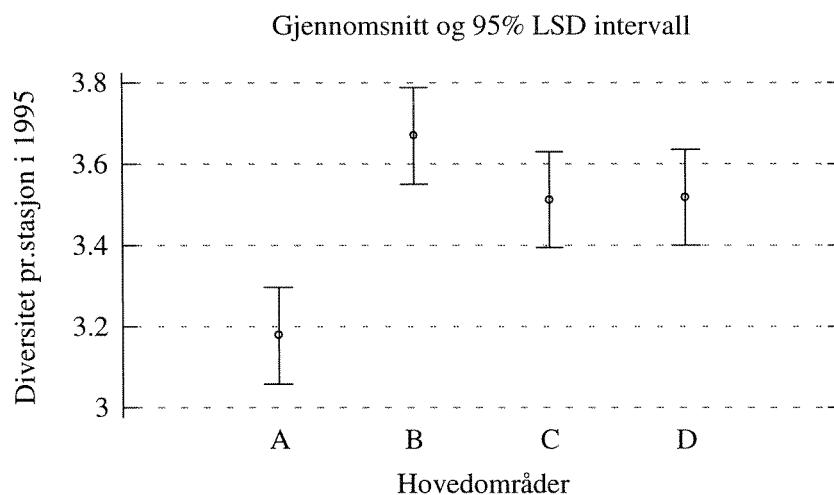
Area	Count	Mean	Homogeneous Groups
A	16	3.13352	X
C	21	3.41835	X
D	21	3.47633	X
B	21	3.50956	X

Contrast	Difference	+/- Limits
A - B	*-0.376039	0.117458
A - C	*-0.284835	0.117458
A - D	*-0.342816	0.117458
B - C	0.0912041	0.109234
B - D	0.033223	0.109234
C - D	-0.0579811	0.109234

\* denotes a statistically significant difference.

## DIVERSITET - ANOVA / MULTIPLE RANGE - TESTER



**Figur 66.** Gjennomsnittlig diversitet pr.stasjon i 1995 innen hvert av hovedområdene. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

### ANOVA Table for Diversitet by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	0.517372	3	0.172457	7.23	0.0050
Within groups	0.286205	12	0.0238504		
Total (Corr.)	0.803577	15			

### Multiple Range Tests for Diversitet by Area

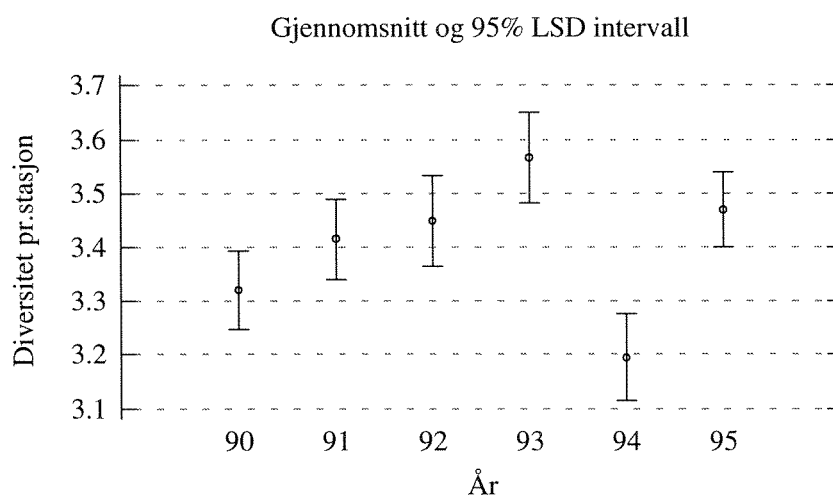
Method: 95.0 percent LSD			
Area	Count	Mean	Homogeneous Groups
A	4	3.17808	X
C	4	3.51248	X
D	4	3.51765	X
B	4	3.67013	X

Contrast	Difference	+/- Limits
A - B	*-0.492048	0.237933
A - C	*-0.334401	0.237933
A - D	*-0.339573	0.237933
B - C	0.157647	0.237933
B - D	0.152474	0.237933
C - D	-0.00517254	0.237933

\* denotes a statistically significant difference.

## DIVERSITET - ANOVA / MULTIPLE RANGE - TESTER



**Figur 67.** Gjennomsnittlig diversitet pr. år fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene.

### ANOVA Table for Diversitet by Year

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1.01537	5	0.203073	5.17	0.0004
Within groups	2.87011	73	0.0393166		
Total (Corr.)	3.88548	78			

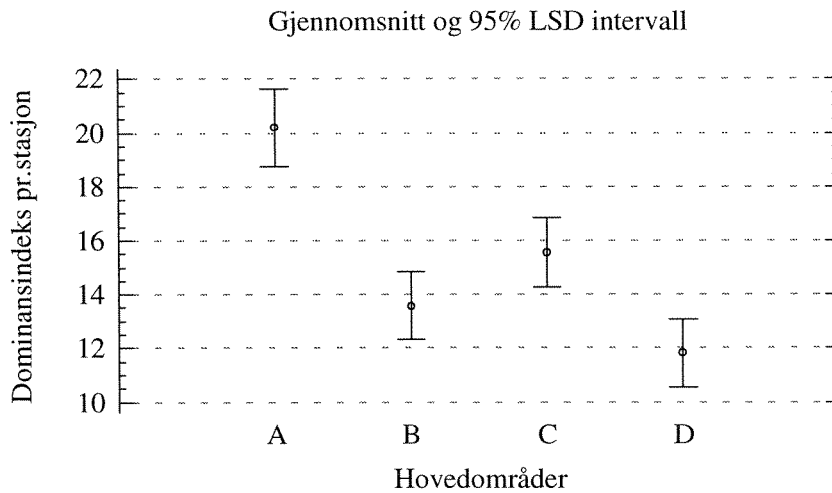
### Multiple Range Tests for Diversitet by Year

Method: 95.0 percent LSD			
Year	Count	Mean	Homogeneous Groups
94	12	3.19437	X
90	15	3.32013	XX
91	14	3.41466	XX
92	11	3.44905	XX
95	16	3.46959	X
93	11	3.56661	X

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**DOMINANSINDEKS - ANOVA / MULTIPLE RANGE - TESTER**


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**Figur 68.** Gjennomsnittlig dominansindeks pr.stasjon innen hvert av hovedområdene fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

**ANOVA Table for Dominansin by Area**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	690.842	3	230.281	13.52	0.0000
Within groups	1277.12	75	17.0283		
Total (Corr.)	1967.96	78			

**Multiple Range Tests for Dominansin by Area**

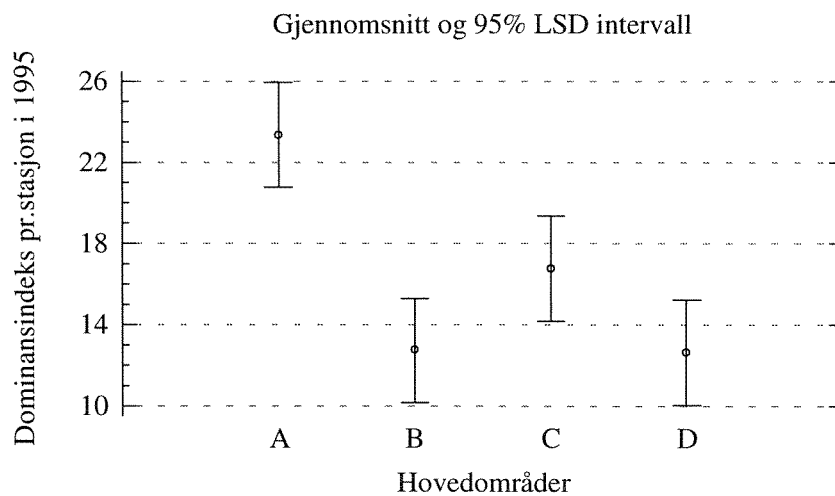
Method: 95.0 percent LSD			
Area	Count	Mean	Homogeneous Groups
D	21	11.8292	X
B	21	13.5788	XX
C	21	15.5506	X
A	16	20.19	X

Contrast	Difference	+/- Limits
A - B	*6.61116	2.72791
A - C	*4.6394	2.72791
A - D	*8.36075	2.72791
B - C	-1.97175	2.5369
B - D	1.7496	2.5369
C - D	*3.72135	2.5369

\* denotes a statistically significant difference.

## DOMINANSINDEKS - ANOVA / MULTIPLE RANGE - TESTER



**Figur 69.** Gjennomsnittlig dominansindeks pr.stasjon i 1995 innen hvert av hovedområdene. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene.

### ANOVA Table for Dominansin by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	305.656	3	101.885	9.02	0.0021
Within groups	135.528	12	11.294		
Total (Corr.)	441.184	15			

### Multiple Range Tests for Dominansin by Area

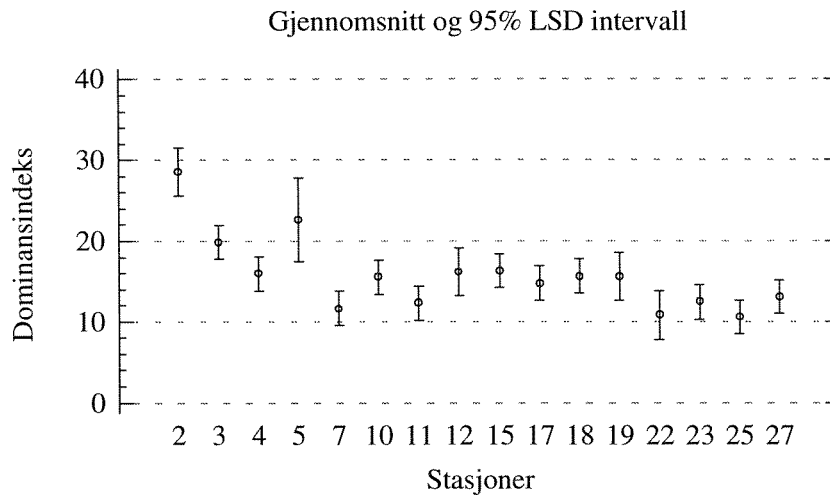
Method: 95.0 percent LSD			
Area	Count	Mean	Homogeneous Groups
D	4	12.6244	X
B	4	12.7185	X
C	4	16.7654	X
A	4	23.3625	X

Contrast	Difference	+/- Limits
A - B	*10.644	5.17761
A - C	*6.59713	5.17761
A - D	*10.7381	5.17761
B - C	-4.04683	5.17761
B - D	0.0941385	5.17761
C - D	4.14097	5.17761

\* denotes a statistically significant difference.

## DOMINANSINDEKS - ANOVA / MULTIPLE RANGE - TESTER



**Figur 70.** Gjennomsnittlig dominansindeks pr.stasjon fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

### ANOVA Table for Dominansin by Stasjon

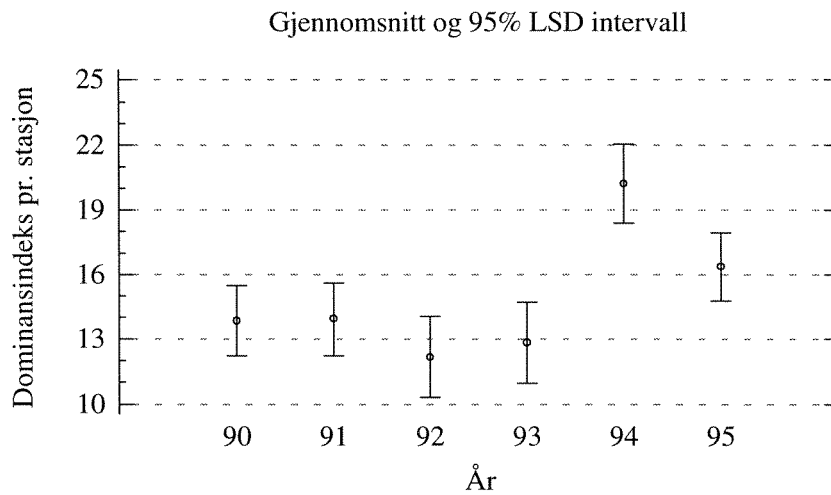
Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1122.77	15	74.8514	5.58	0.0000
Within groups	845.193	63	13.4158		
Total (Corr.)	1967.96	78			

### Multiple Range Tests for Dominansin by Stasjon

Method: 95.0 percent LSD			
Stasjon	Count	Mean	Homogeneous Groups
25	6	10.5347	X
22	3	10.8037	XXX
7	6	11.6333	XX
11	6	12.2702	XXXX
23	6	12.4173	XXXX
27	6	13.0484	XXXX
17	6	14.725	XXXX
10	6	15.545	XXXX
19	3	15.5556	XXXXXX
18	6	15.6236	XXXXXX
4	6	15.9467	XXXX
12	3	16.1546	XXXXXX
15	6	16.3005	XXX
3	6	19.8448	X
5	1	22.6642	XXX
2	3	28.5422	X



## DOMINANSINDEKS - ANOVA / MULTIPLE RANGE - TESTER



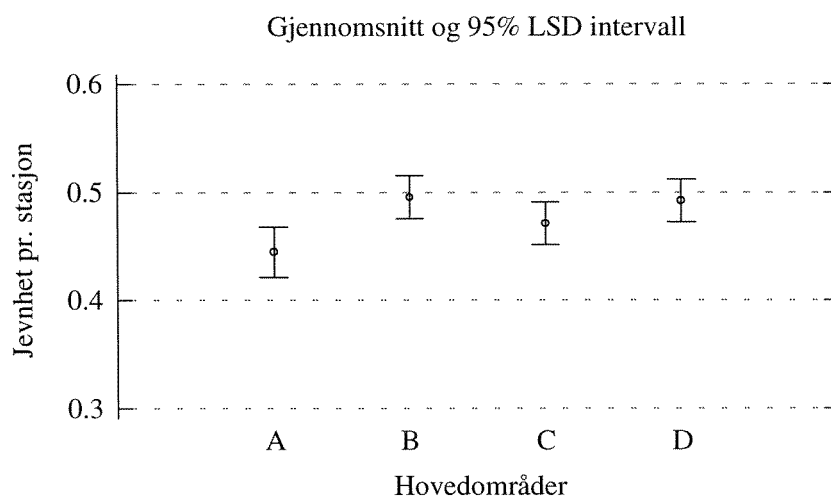
**Figur 71.** Gjennomsnittlig dominans pr.år fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

### ANOVA Table for Dominansin by Year

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	528.591	5	105.718	5.36	0.0003
Within groups	1439.37	73	19.7174		
Total (Corr.)	1967.96	78			

### Multiple Range Tests for Dominansin by Year

Method: 95.0 percent LSD			
Year	Count	Mean	Homogeneous Groups
92	11	12.2013	X
93	11	12.843	X
90	15	13.8672	XX
91	14	13.9429	XX
95	16	16.3677	X
94	12	20.2159	X

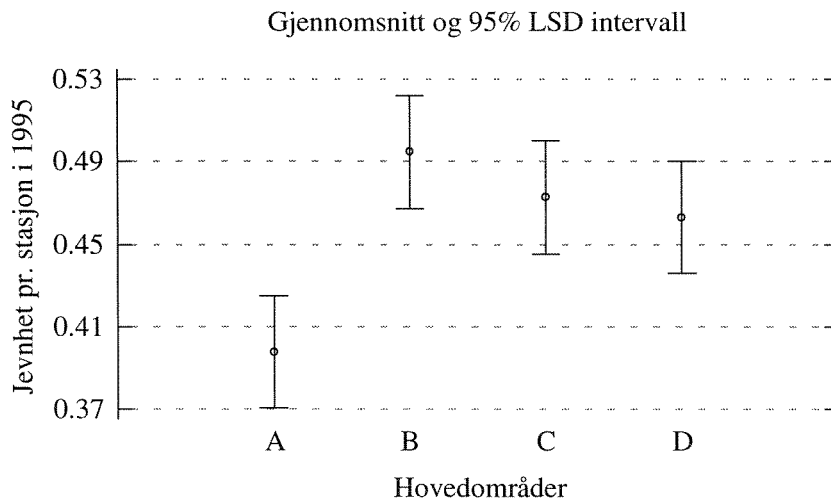
**JEVNHET** - ANOVA / MULTIPLE RANGE - TESTER

**Figur 72.** Gjennomsnittlig jevnhet pr.stasjon innen hvert av hovedområdene fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

**ANOVA Table for Jevnhet by Area**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	0.029673	3	0.00989101	2.35	0.0790
Within groups	0.315438	75	0.00420584		
Total (Corr.)	0.345111	78			

## JEVNHET - ANOVA / MULTIPLE RANGE - TESTER



**Figur 73.** Gjennomsnittlig jevnhet pr.stasjon i 1995 innen hvert av hovedområdene. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

## ANOVA Table for Jevnhet by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	0.0208958	3	0.00696526	5.55	0.0127
Within groups	0.0150615	12	0.00125513		
Total (Corr.)	0.0359573	15			

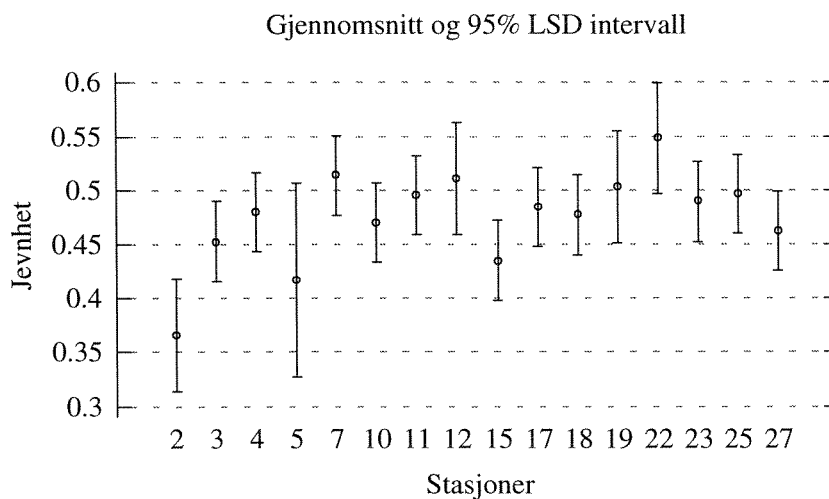
## Multiple Range Tests for Jevnhet by Area

Method: 95.0 percent LSD			
Area	Count	Mean	Homogeneous Groups
A	4	0.397588	X
D	4	0.462879	X
C	4	0.472612	X
B	4	0.494628	X

Contrast	Difference	+/- Limits
A - B	*-0.0970403	0.0545821
A - C	*-0.075024	0.0545821
A - D	*-0.0652908	0.0545821
B - C	0.0220162	0.0545821
B - D	0.0317495	0.0545821
C - D	0.00973326	0.0545821

\* denotes a statistically significant difference.

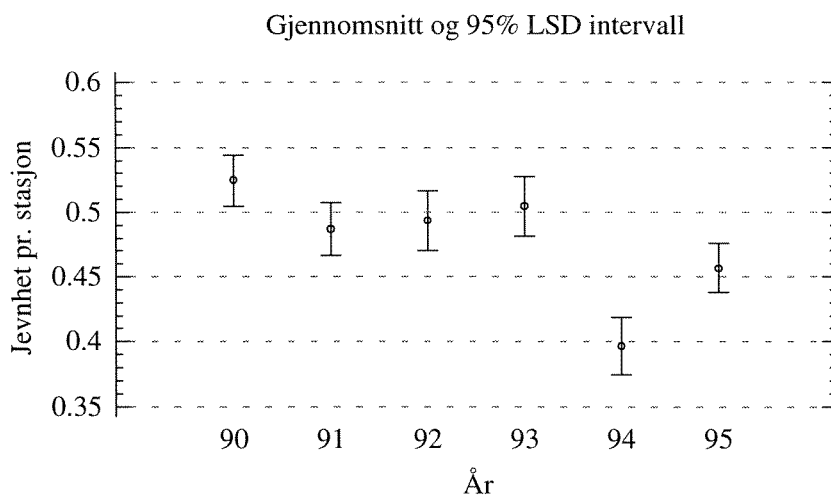
**JEVNHET - ANOVA / MULTIPLE RANGE - TESTER**

**Figur 74.** Gjennomsnittlig jevnhet pr.stasjon fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

**ANOVA Table for Jevnhet by Stasjon**

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	0.0906546	15	0.00604364	1.50	0.1340
Within groups	0.254457	63	0.00403899		
Total (Corr.)	0.345111	78			

## JEVNHET - ANOVA / MULTIPLE RANGE - TESTER



**Figur 75.** Gjennomsnittlig jevnhet pr.år fra 1990 til 1995. LSD (Least Significant Difference) er parvise t-tester mellom gj.sn.-verdier for faktorene

### ANOVA Table for Jevnhet by Year

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	0.130765	5	0.0261529	8.91	0.0000
Within groups	0.214347	73	0.00293625		
Total (Corr.)	0.345111	78			

### Multiple Range Tests for Jevnhet by Year

Method: 95.0 percent LSD			
Year	Count	Mean	Homogeneous Groups
94	12	0.396635	X
95	16	0.456927	X
91	14	0.487282	XX
92	11	0.493431	XX
93	11	0.504561	X
90	15	0.524645	X

**SIMILARITY PERCENTAGES (SIMPER)**SOURCE DATA FILE : **Område A**

NUMBER OF SPECIES (ROWS) IN DATA SET = 90

NUMBER OF COLUMNS IN DATA SET = 16

NO SPECIES REDUCTION

SPECIES NAME FILE : A.LST

GROUP SIZE COLUMN NUMBERS

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St2      3      1-3
St3      6      4-9
St4      6      10-15
St5      1      16

```

SQUARE ROOT TRANSFORMATION

BRAY-CURTIS SIMILARITY

Value for percentage cutoff = 50.0 / 25.0

**St 2 AVERAGE SIMILARITY = 61.54**

SPECIES		AV.ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	58	76.33	6.9	7.14	11.14	11.14
COROF	57	37.00	5.2	15.94	8.49	19.63
CERAM	51	40.67	3.9	6.28	6.39	26.02
CHOTO	2	27.00	3.6	5.00	5.92	31.94
DELSA	61	27.33	3.4	2.80	5.50	37.44
PHYRU	76	26.33	3.4	2.80	5.50	42.94
CRUPE	59	24.00	3.1	5.62	5.12	48.06

**St 3 AVERAGE SIMILARITY = 65.47**

CORAX	58	81.00	5.3	6.25	8.16	8.16
POLYU	74	51.33	4.0	10.30	6.13	14.29
DELSA	61	44.83	4.0	10.02	6.11	20.40
COROF	57	41.67	3.8	10.87	5.77	26.17
PHYRU	76	37.50	3.5	8.32	5.34	31.51
CERAM	51	39.83	3.4	10.83	5.21	36.72
CRUPE	59	29.00	2.9	3.85	4.50	41.22
CHOTO	2	21.00	2.5	5.79	3.80	45.02
CHAME	28	20.50	2.5	7.11	3.79	48.81

**St. 4 AVERAGE SIMILARITY = 71.75**

CORAX	58	78.83	4.5	12.44	6.32	6.32
DELSA	61	53.33	3.7	11.02	5.13	11.45
POLYU	74	53.17	3.6	11.22	5.02	16.47
COROF	57	37.00	3.0	17.47	4.21	20.68
CRUPE	59	36.17	3.0	6.24	4.12	24.80
PHYRU	76	38.83	2.9	3.96	4.07	28.88
CERAM	51	35.83	2.7	11.36	3.81	32.69
PHYLL	73	34.33	2.5	3.27	3.51	36.20
HALSI	9	25.00	2.5	16.63	3.48	39.68
DILCA	62	22.83	2.2	7.18	3.11	42.79
TRAIN	49	28.50	2.2	4.81	3.04	45.83
CHOCR	56	18.67	1.9	8.37	2.67	48.51

**St. 5 var bare undersøkt ett år dermed ingen årlig likhetsvurdering**AVERAGE DISSIMILARITY BETWEEN **St. 3** og **St. 2** = 42.02

SPECIES	NO	ST. 3.		ST. 2.		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
POLYU	74	51.33	8.00	1.79	2.21	4.27	4.27		
BONAS	47	17.17	.00	1.24	1.65	2.95	7.22		
PHYLL	73	22.33	3.00	1.14	1.91	2.71	9.92		
DERMA	30	.00	13.33	1.05	1.33	2.49	12.42		
LAMIH	11	16.67	9.33	1.03	1.42	2.45	14.87		
BRUNT	1	18.00	24.33	1.02	1.67	2.42	17.29		
ODODE	72	9.33	.00	.98	2.27	2.34	19.62		
RHOCO	88	17.83	3.33	.98	1.44	2.32	21.94		
LAMIS	12	9.83	.00	.95	1.34	2.25	24.20		

AVERAGE DISSIMILARITY BETWEEN **St. 4** & **St. 2** = 43.25

SPECIES	NO	ST. 4.		ST. 2.		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
POLYU	74	53.17	8.00	1.68	2.34	3.89	3.89		
PHYLL	73	34.33	3.00	1.42	2.31	3.27	7.16		
BONAS	47	22.33	.00	1.38	1.91	3.18	10.34		
DILCA	62	22.83	1.00	1.36	3.93	3.13	13.47		
ODODE	72	18.67	.00	1.28	2.07	2.95	16.43		
SPHAC	18	16.17	.00	1.15	1.92	2.65	19.08		
PTEPA	86	23.33	.00	1.06	.82	2.44	21.52		
CHOCR	56	18.67	1.67	1.04	2.88	2.41	23.93		

AVERAGE DISSIMILARITY BETWEEN **St. 4** og **St. 3** = 32.04

SPECIES	NO	ST. 4.		ST. 3.		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
PTEPA	86	23.33	10.17	.95	1.13	2.96	2.96		
LAMIH	11	22.33	16.67	.91	1.30	2.85	5.80		
RHOCO	88	12.67	17.83	.76	1.83	2.36	8.17		
BROBY	50	10.67	6.50	.73	1.77	2.27	10.44		
SPHAC	18	16.17	8.67	.72	1.32	2.25	12.69		
BONAS	47	22.33	17.17	.71	1.17	2.20	14.89		
HILRU	68	12.83	12.67	.70	1.42	2.20	17.09		
DILCA	62	22.83	9.17	.70	1.34	2.18	19.27		
AUDOI	42	12.17	11.67	.67	1.36	2.09	21.36		
LAMIS	12	14.00	9.83	.64	1.35	2.01	23.37		

AVERAGE DISSIMILARITY BETWEEN **St. 5** og **St. 2.** = 43.36

SPECIES	NO	ST. 5.		ST. 2.		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
BONAS	47	38.00	.00	1.96	20.11	4.51	4.51		
PTEPA	86	34.00	.00	1.85	20.11	4.27	8.78		
AUDOU	43	32.00	.67	1.65	4.96	3.81	12.59		
EPIFL	32	32.00	2.00	1.55	3.03	3.58	16.17		
BRYPL	25	18.00	.67	1.21	3.87	2.78	18.95		
TRAIN	49	44.00	9.00	1.20	3.36	2.76	21.71		
PNEOP	71	14.00	.00	1.19	20.11	2.74	24.44		

AVERAGE DISSIMILARITY BETWEEN **St 5** og **St. 3** = 33.14

SPECIES	NO	ST. 5.		ST. 3.		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
POLYU	74	2.00	51.33	1.56	5.28	4.72	4.72		
EPIFL	32	32.00	4.83	1.26	2.13	3.79	8.51		
AUDOU	43	32.00	6.33	1.15	1.88	3.47	11.98		
AUDOI	42	42.00	11.67	1.09	1.49	3.28	15.26		
LAMIH	11	35.00	16.67	.95	1.21	2.86	18.13		
PTEPA	86	34.00	10.17	.95	1.43	2.86	20.98		

CLARU 29 12.00 .50 .85 4.12 2.56 23.55

AVERAGE DISSIMILARITY BETWEEN St 5 og St. 4 = 29.62

SPECIES	NO	ST. 5.	ST. 4.	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
POLYU	74	2.00	53.17	1.49	5.93	5.04	5.04
EPIFL	32	32.00	.00	1.44	19.14	4.87	9.92
AUDOU	43	32.00	2.83	1.28	2.85	4.31	14.22
PTEPA	86	34.00	23.33	1.04	1.84	3.51	17.74
AUDOI	42	42.00	12.17	.92	1.64	3.11	20.85
SPHAC	18	.00	16.17	.89	1.80	3.02	23.87

### SOURCE DATA FILE : Område B

NUMBER OF SPECIES (ROWS) IN DATA SET = 110

NUMBER OF COLUMNS IN DATA SET = 21

NO SPECIES REDUCTION

SPECIES NAME FILE : B.LST

GROUP	SIZE	COLUMN NUMBERS
St. 7	6	1-6
St. 10	6	7-12
St. 11	6	13-18
St. 12	3	19-21

SQUARE ROOT TRANSFORMATION BRAY-CURTIS SIMILARITY

Value for percentage cutoff = 50.0 / 25.0

### ST. 7. AVERAGE SIMILARITY = 74.92

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	70	74.67	3.6	8.65	4.82	4.82
BRUNT	1	72.17	3.5	11.38	4.65	9.48
DELSA	73	54.67	3.1	11.58	4.07	13.55
PHYRU	92	50.67	2.9	9.99	3.93	17.49
POLYU	89	49.50	2.8	12.46	3.76	21.25
SPHAC	22	48.33	2.8	10.18	3.75	25.00
PHYLL	88	50.50	2.5	3.77	3.38	28.38
LAMIH	15	39.50	2.5	8.47	3.31	31.69
TRAIN	59	42.17	2.4	5.54	3.24	34.93
ODODE	87	31.17	2.3	10.90	3.12	38.05
RHOCO	108	39.83	2.3	5.44	3.09	41.14
LOMCL	82	35.00	2.3	8.50	3.06	44.20
COROF	69	35.17	2.2	5.63	2.91	47.11

### ST. 10. AVERAGE SIMILARITY = 74.07

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	70	90.00	3.9	17.10	5.23	5.23
DELSA	73	54.17	3.0	14.67	4.00	9.24
POLYU	89	55.17	2.7	4.92	3.68	12.91
TRAIN	59	46.67	2.6	12.26	3.55	16.47
LAMIH	15	50.17	2.6	8.63	3.50	19.97
RHOCO	108	43.67	2.5	7.68	3.41	23.37
COROF	69	39.00	2.4	9.55	3.26	26.64
BRUNT	1	45.50	2.4	3.05	3.18	29.82
DILCA	74	36.83	2.3	9.09	3.17	32.98
PHYRU	92	39.83	2.3	8.13	3.11	36.09
CRUPE	71	36.50	2.3	12.74	3.09	39.18
SPHAC	22	32.83	2.2	7.45	2.92	42.10
PHYLL	88	32.00	2.1	6.49	2.82	44.92
ODODE	87	22.50	1.8	9.37	2.47	47.39
CHOCR	67	26.67	1.8	4.21	2.43	49.83



**ST. 11. AVERAGE SIMILARITY = 73.76**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	70	80.17	3.6	8.29	4.86	4.86
BRUNT	1	61.17	3.1	12.12	4.21	9.07
PHYLL	88	63.17	3.0	5.88	4.10	13.17
DELSA	73	50.00	2.7	7.75	3.71	16.88
POLYU	89	49.67	2.7	12.51	3.61	20.49
LAMIH	15	44.67	2.6	8.56	3.46	23.96
PHYRU	92	45.00	2.5	5.58	3.45	27.40
LAMIS	16	47.00	2.5	6.32	3.41	30.82
SPHAC	22	46.33	2.5	9.07	3.40	34.22
RHOCO	108	41.83	2.3	4.57	3.10	37.32
CHOCR	67	34.33	2.2	10.22	2.96	40.28
PNEOP	84	33.83	2.1	8.70	2.83	43.11
CRUPE	71	33.83	2.0	7.47	2.77	45.88
COROF	69	34.67	2.0	3.82	2.77	48.65

**ST. 12. AVERAGE SIMILARITY = 73.44**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	70	83.00	3.9	35.22	5.31	5.31
POLYU	89	54.67	3.1	39.66	4.21	9.52
BRUNT	1	52.33	3.0	7.90	4.11	13.63
DELSA	73	44.00	2.9	19.91	3.97	17.60
LAMIH	15	48.00	2.8	11.61	3.84	21.44
TRAIN	59	48.00	2.7	6.32	3.74	25.18
CRUPE	71	43.67	2.7	20.02	3.72	28.90
PHYRU	92	39.33	2.6	15.32	3.51	32.41
COROF	69	35.67	2.5	15.15	3.45	35.86
BONAS	57	33.33	2.3	5.13	3.11	38.97
SPHAC	22	35.00	2.3	19.66	3.10	42.06
CHAME	34	26.67	2.0	39.16	2.78	44.84
CALCR	65	22.33	2.0	26.00	2.72	47.56
AUDOI	51	35.00	1.7	2.32	2.33	49.89

**AVERAGE DISSIMILARITY BETWEEN ST. 10 og St. 7 = 26.90**

SPECIES	NO	ST. 10.	ST. 7.	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
LAMIS	16	24.83	36.17	.69	1.28	2.56	2.56
AUDOI	51	22.83	18.83	.66	1.37	2.47	5.03
ECTOC	9	11.83	32.17	.65	1.58	2.42	7.45
PNEOP	84	12.67	21.33	.62	1.40	2.30	9.74
LOMOR	83	12.17	1.17	.56	1.94	2.08	11.83
BONAS	57	24.33	19.67	.56	1.15	2.07	13.90
DESVI	7	10.17	15.17	.55	1.40	2.06	15.96
PHYCR	93	8.83	12.83	.54	1.29	2.01	17.97
CUTAG	5	10.50	13.00	.52	1.44	1.92	19.89
PORCO	104	11.17	3.50	.48	1.37	1.79	21.68
AUDOU	52	9.33	4.50	.45	.97	1.68	23.36
BRUNT	1	45.50	72.17	.41	1.28	1.54	24.90

**AVERAGE DISSIMILARITY BETWEEN St. 11 og St. 7 = 26.06**

SPECIES	NO	ST. 11.	ST. 7.	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
AUDOI	51	28.17	18.83	.64	1.38	2.44	2.44
APORU	55	9.33	24.83	.61	1.47	2.36	4.79
BONAS	57	28.33	19.67	.61	1.26	2.35	7.14
ECTOC	9	29.67	32.17	.59	1.13	2.25	9.39
PHYCR	93	10.50	12.83	.54	1.95	2.05	11.44
CALCO	63	13.50	4.67	.53	1.34	2.04	13.48
CUTAG	5	5.67	13.00	.52	1.32	1.99	15.47
SPHCI	26	14.83	6.83	.51	1.34	1.95	17.42
FUCSE	11	5.50	.00	.48	3.84	1.83	19.25
TRAIN	59	38.00	42.17	.46	1.07	1.78	21.03
SPHPL	27	23.17	8.00	.46	1.37	1.75	22.78
PALPA	91	9.67	11.17	.42	1.39	1.61	24.39

## AVERAGE DISSIMILARITY BETWEEN St. 11 og St. 10 = 28.16

SPECIES	NO	ST. 11.	ST. 10.	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
AUDOI	51	28.17	22.83	.75	1.60	2.67	2.67
LAMIS	16	47.00	24.83	.72	1.22	2.56	5.23
PNEOP	84	33.83	12.67	.72	1.49	2.55	7.78
ECTOC	9	29.67	11.83	.59	1.63	2.09	9.87
BONAS	57	28.33	24.33	.54	1.11	1.91	11.78
DESVI	7	15.17	10.17	.53	1.62	1.87	13.65
CALCO	63	13.50	5.17	.53	1.34	1.87	15.52
PHYLL	88	63.17	32.00	.49	1.78	1.74	17.26
LOMOR	83	5.67	12.17	.48	1.69	1.71	18.97
CUTAG	5	5.67	10.50	.48	1.31	1.69	20.66
PORCO	104	5.00	11.17	.47	1.28	1.66	22.33
SPHCI	26	14.83	5.33	.46	1.54	1.63	23.96

## AVERAGE DISSIMILARITY BETWEEN St. 12 og St. 7 = 30.58

SPECIES	NO	ST. 12.	ST. 7.	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
APORU	55	2.33	24.83	.81	2.31	2.63	2.63
PTEPA	105	3.33	22.00	.80	2.15	2.62	5.25
RHOCO	108	14.33	39.83	.72	1.32	2.35	7.60
PHYLL	88	17.00	50.50	.71	1.53	2.31	9.91
ODODE	87	9.67	31.17	.69	1.51	2.25	12.16
LAMIS	16	21.67	36.17	.66	1.33	2.15	14.31
AUDOI	51	35.00	18.83	.65	1.33	2.13	16.44
CUTAG	5	.00	13.00	.60	1.30	1.96	18.41
ECTOC	9	16.67	32.17	.60	2.52	1.95	20.36
DESVI	7	18.67	15.17	.59	1.34	1.93	22.29
SPHPL	27	.00	8.00	.57	2.86	1.87	24.16

## AVERAGE DISSIMILARITY BETWEEN St. 12 og St. 10. = 29.58

SPECIES	NO	ST. 12.	ST. 10.	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
AUDOI	51	35.00	22.83	.80	1.73	2.71	2.71
RHOCO	108	14.33	43.67	.76	1.38	2.58	5.29
SPHPL	27	.00	13.83	.76	4.08	2.56	7.85
LAMIS	16	21.67	24.83	.72	1.28	2.42	10.27
DILCA	74	11.00	36.83	.68	1.73	2.31	12.58
APORU	55	2.33	19.00	.66	2.30	2.24	14.82
DESVI	7	18.67	10.17	.63	1.38	2.13	16.95
CUTAG	5	.00	10.50	.55	1.27	1.86	18.81
PTEPA	105	3.33	11.83	.55	1.57	1.85	20.66
PNEOP	84	11.33	12.67	.54	1.35	1.84	22.51
ODODE	87	9.67	22.50	.49	1.13	1.67	24.17

## AVERAGE DISSIMILARITY BETWEEN St. 12 og St. 11. = 32.00

SPECIES	NO	ST. 12.	ST. 11.	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
SPHPL	27	.00	23.17	.98	3.20	3.07	3.07
PHYLL	88	17.00	63.17	.88	2.02	2.76	5.83
RHOCO	108	14.33	41.83	.72	1.24	2.25	8.08
LAMIS	16	21.67	47.00	.69	1.22	2.15	10.23
PTEPA	105	3.33	18.00	.68	1.65	2.13	12.36
FURLU	77	.00	11.33	.67	2.58	2.08	14.44
PNEOP	84	11.33	33.83	.65	1.27	2.03	16.47
CHAME	34	26.67	5.67	.63	2.58	1.96	18.43
CALCO	63	.00	13.50	.62	1.35	1.93	20.36
AUDOI	51	35.00	28.17	.60	1.28	1.89	22.25
ODODE	87	9.67	27.17	.59	1.30	1.86	24.11

SOURCE DATA FILE : **Område C**

## HEADING

NUMBER OF SPECIES (ROWS) IN DATA SET = 118

NUMBER OF COLUMNS IN DATA SET = 21

NO SPECIES REDUCTION

SPECIES NAME FILE : CM2.LST

GROUP	SIZE	COLUMN NUMBERS
St. 15	6	1-6
St. 17	6	7-12
St. 18	6	13-18
St. 19	3	19-21

## SQUARE ROOT TRANSFORMATION

## BRAY-CURTIS SIMILARITY

Value for percentage cutoff = 50.0 / 25.0

**ST. 15.** AVERAGE SIMILARITY = 75.28

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	83	94.00	4.2	23.20	5.58	5.58
LAMIH	25	73.50	3.7	20.03	4.89	10.48
PHYRU	103	55.17	3.2	20.68	4.21	14.69
DELSA	86	51.83	3.0	14.51	4.02	18.71
TRAIN	72	55.17	3.0	8.43	3.97	22.68
PTIPL	114	41.17	2.6	10.20	3.52	26.20
MEMAL	96	36.00	2.4	5.96	3.21	29.41
CHAME	46	33.67	2.4	11.18	3.19	32.60
PHYLL	98	32.00	2.2	4.38	2.98	35.58
PALPA	101	28.83	2.1	7.32	2.80	38.38
AUDOI	63	36.17	2.1	4.05	2.75	41.14
POLYU	99	43.83	2.1	1.36	2.74	43.87
CRUPE	84	31.17	2.0	4.37	2.70	46.57
CALCR	78	32.83	1.9	2.23	2.55	49.12

**ST. 17.** AVERAGE SIMILARITY = 74.74

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	83	87.00	3.9	22.15	5.20	5.20
TRAIN	72	55.17	3.0	9.85	4.00	9.20
RHOCO	116	49.67	2.9	31.28	3.88	13.08
PHYRU	103	51.17	2.9	11.15	3.86	16.94
CALCR	78	47.17	2.8	17.01	3.70	20.65
BRUNT	3	47.17	2.6	5.21	3.53	24.18
POLYU	99	42.83	2.5	4.84	3.32	27.50
LAMIH	25	41.33	2.4	3.74	3.17	30.66
LAMIS	26	37.67	2.3	6.59	3.04	33.70
ODODE	97	33.33	2.1	5.55	2.87	36.57
SPHAC	34	41.00	2.1	2.26	2.85	39.42
SPHPL	39	30.67	2.1	8.44	2.81	42.22
PHYCR	104	31.67	2.1	6.24	2.80	45.02
PTIPL	114	31.17	2.1	8.76	2.78	47.80

**ST. 18. AVERAGE SIMILARITY = 77.35**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	83	86.50	4.0	9.33	5.14	5.14
LAMIH	25	78.67	3.8	13.80	4.90	10.04
POLYU	99	56.50	3.2	13.00	4.08	14.11
COROF	82	54.00	3.1	9.84	3.99	18.10
TRAIN	72	46.17	2.9	16.99	3.75	21.85
CHAME	46	45.50	2.9	15.30	3.71	25.57
DELSA	86	44.17	2.7	8.99	3.53	29.10
PHYRU	103	44.67	2.7	11.90	3.51	32.60
SPHAC	34	45.17	2.6	7.73	3.42	36.02
RHOCO	116	34.67	2.4	7.93	3.05	39.07
AUDOI	63	41.17	2.2	3.63	2.86	41.93
CHOCR	80	25.17	2.1	17.10	2.77	44.70
CRUPE	84	32.83	2.1	2.40	2.69	47.39

**ST. 19. AVERAGE SIMILARITY = 77.09**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	83	92.67	4.2	16.25	5.50	5.50
LAMIH	25	79.00	3.9	40.30	5.09	10.58
POLYU	99	59.33	3.4	27.45	4.42	15.01
AUDOI	63	52.67	3.2	56.12	4.21	19.22
DELSA	86	54.00	3.2	19.00	4.09	23.31
TRAIN	72	47.67	3.1	20.45	3.96	27.26
PHYRU	103	51.33	3.0	17.37	3.94	31.21
CRUPE	84	42.67	2.9	35.07	3.80	35.01
PTIPL	114	45.00	2.8	8.00	3.57	38.58
COROF	82	45.00	2.6	6.31	3.33	41.91
PTEPA	113	31.67	2.5	51.58	3.23	45.13
CHAME	46	35.33	2.5	8.50	3.18	48.32

**AVERAGE DISSIMILARITY BETWEEN St. 17 og St. 15. = 32.76**

SPECIES	NO	ST. 17.		ST. 15.		AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN	AV ABUN	AV ABUN				
LAMIS	26	37.67	.00			1.31	5.52	3.99	3.99
BRUNT	3	47.17	5.67			1.08	2.54	3.30	7.29
ALARI	1	.00	18.67			.92	6.36	2.81	10.09
RHOCO	116	49.67	8.33			.91	6.41	2.77	12.87
SPHPL	39	30.67	6.17			.78	2.05	2.37	15.24
PHYCR	104	31.67	7.00			.73	1.89	2.23	17.47
PNEOP	94	6.33	23.67			.65	1.82	1.98	19.45
AUDOU	64	25.17	22.33			.63	1.31	1.92	21.37
ODODE	97	33.33	10.83			.61	1.55	1.87	23.24

**AVERAGE DISSIMILARITY BETWEEN St. 18 og St. 15. = 28.05**

SPECIES	NO	ST. 18.		ST. 15.		AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN	AV ABUN	AV ABUN				
APORU	69	2.17	19.67			.78	1.79	2.78	2.78
CALLA	79	1.83	17.67			.71	2.23	2.54	5.32
BRUNT	3	24.17	5.67			.68	1.58	2.43	7.74
FURLU	90	14.33	1.33			.68	2.60	2.42	10.16
PNEOP	94	35.17	23.67			.67	1.37	2.40	12.56
RHOCO	116	34.67	8.33			.66	3.09	2.36	14.92
AUDOU	64	14.67	22.33			.62	1.31	2.22	17.14
DESVI	9	11.83	19.17			.61	1.57	2.19	19.33
PHYCR	104	22.50	7.00			.57	1.46	2.04	21.36
COROF	82	54.00	25.33			.54	1.68	1.93	23.30

AVERAGE DISSIMILARITY BETWEEN **St. 18** og **St. 17.** = 30.70

SPECIES	NO	ST. 18.		ST. 17.		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
LAMIS	26	2.17	37.67	1.15	3.20	3.74	3.74		
ALARI	1	28.67	.00	1.10	3.47	3.59	7.32		
COROF	82	54.00	9.67	.93	5.01	3.02	10.35		
ODODE	97	3.50	33.33	.86	3.11	2.80	13.15		
PNEOP	94	35.17	6.33	.85	1.66	2.76	15.91		
PTEPA	113	25.67	11.83	.67	2.18	2.17	18.08		
BRYPL	43	3.00	18.50	.66	1.58	2.17	20.25		
AUDOU	64	14.67	25.17	.64	1.31	2.08	22.33		
LAMIH	25	78.67	41.33	.56	1.72	1.82	24.15		

AVERAGE DISSIMILARITY BETWEEN **St. 19** og **St. 15.** = 26.36

SPECIES	NO	ST. 19.		ST. 15.		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
PNEOP	94	57.33	23.67	.95	1.91	3.62	3.62		
AUDOU	64	42.00	22.33	.88	1.50	3.35	6.97		
BRUNT	3	32.00	5.67	.85	2.24	3.22	10.19		
CUTAG	7	17.00	2.67	.69	1.31	2.60	12.79		
HALOV	52	27.00	18.50	.67	1.38	2.53	15.32		
APORU	69	4.00	19.67	.66	1.80	2.52	17.84		
DESVI	9	22.33	19.17	.65	1.13	2.46	20.31		
ECTOC	12	13.00	17.83	.57	1.45	2.16	22.47		
SPHCI	37	8.00	7.00	.54	1.08	2.05	24.52		

AVERAGE DISSIMILARITY BETWEEN **St. 19** og **St. 17.** = 32.69

SPECIES	NO	ST. 19.		ST. 17.		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
LAMIS	26	.67	37.67	1.22	4.16	3.74	3.74		
PNEOP	94	57.33	6.33	1.12	1.61	3.42	7.16		
ALARI	1	21.67	.00	1.02	9.75	3.11	10.27		
AUDOU	64	42.00	25.17	.86	1.51	2.63	12.90		
RHOCO	116	18.00	49.67	.81	1.35	2.49	15.38		
COROF	82	45.00	9.67	.78	2.80	2.38	17.76		
PTEPA	113	31.67	11.83	.76	2.40	2.34	20.10		
BRYPL	43	.67	18.50	.76	1.81	2.34	22.44		
SPHPL	39	8.00	30.67	.72	1.60	2.20	24.64		

AVERAGE DISSIMILARITY BETWEEN **St. 19** og **St. 18.** = 25.52

SPECIES	NO	ST. 19.		ST. 18.		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
AUDOU	64	42.00	14.67	.95	1.70	3.72	3.72		
PNEOP	94	57.33	35.17	.88	1.49	3.46	7.18		
FURLU	90	.00	14.33	.83	4.39	3.25	10.43		
HALOV	52	27.00	11.83	.73	1.80	2.86	13.30		
CUTAG	7	17.00	.67	.71	1.50	2.77	16.06		
RHOCO	116	18.00	34.67	.70	1.45	2.73	18.79		
DESVI	9	22.33	11.83	.67	1.58	2.64	21.44		
CHOCR	80	6.67	25.17	.56	3.60	2.18	23.62		

SOURCE DATA FILE : **Område D**

NUMBER OF SPECIES (ROWS) IN DATA SET = 121

NUMBER OF COLUMNS IN DATA SET = 21

NO SPECIES REDUCTION

SPECIES NAME FILE : DM2.LST

GROUP	SIZE	COLUMN NUMBERS
St. 22	3	1-3
St. 23	6	4-9
St. 25	6	10-15
St. 27	6	16-21

SQUARE ROOT TRANSFORMATION

BRAY-CURTIS SIMILARITY

Value for percentage cutoff = 50.0 / 25.0

**ST. 22.** AVERAGE SIMILARITY = 75.52

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	86	75.67	3.6	24.70	4.80	4.80
TRAIN	77	70.00	3.5	26.50	4.59	9.39
PHYRU	107	52.67	3.0	13.03	4.02	13.41
SPHAC	36	50.67	2.8	8.77	3.72	17.13
LAMIS	25	43.33	2.8	18.55	3.72	20.85
CRUPE	87	50.33	2.8	13.43	3.67	24.52
POLYU	102	42.00	2.5	11.65	3.26	27.78
CALCR	81	37.00	2.4	13.48	3.23	31.01
LAMIH	24	41.00	2.4	11.37	3.21	34.23
PTIPL	116	39.67	2.3	10.54	3.11	37.34
DELSA	89	39.67	2.3	4.41	3.07	40.41
CHAME	49	30.67	2.2	26.16	2.94	43.35
COROF	85	37.00	2.2	4.50	2.92	46.27
AUDOI	67	48.00	2.1	6.40	2.84	49.11

**ST. 23.** AVERAGE SIMILARITY = 78.09

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	86	82.50	3.7	18.62	4.78	4.78
TRAIN	77	74.33	3.5	18.90	4.51	9.29
LAMIH	24	63.50	3.0	7.35	3.89	13.18
SPHAC	36	50.00	2.7	11.26	3.51	16.69
CUTAG	5	47.17	2.7	10.63	3.51	20.20
DELSA	89	44.00	2.6	10.98	3.38	23.59
POLYU	102	46.33	2.6	6.87	3.28	26.87
LAMIS	25	40.00	2.5	14.96	3.27	30.14
PHYRU	107	42.67	2.5	11.62	3.17	33.31
CRUPE	87	42.83	2.4	5.57	3.11	36.42
DESAC	6	37.33	2.3	10.52	2.94	39.36
AUDOI	67	43.17	2.3	6.42	2.90	42.27
PALPA	104	33.83	2.3	13.79	2.89	45.15
PTEPA	115	36.17	2.2	5.02	2.88	48.03

**ST. 25. AVERAGE SIMILARITY = 75.24**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	86	74.67	3.6	14.45	4.78	4.78
TRAIN	77	64.17	3.3	22.66	4.45	9.22
LAMIH	24	64.83	3.3	14.42	4.36	13.58
DELSA	89	48.17	2.9	15.39	3.85	17.43
COROF	85	47.50	2.8	13.41	3.78	21.22
CUTAG	5	43.67	2.7	11.29	3.61	24.82
BRUNT	2	46.17	2.5	4.79	3.30	28.12
LOMCL	94	35.17	2.4	15.00	3.24	31.35
CRUPE	87	36.00	2.4	7.07	3.13	34.49
POLYU	102	38.00	2.4	7.70	3.13	37.61
DESVI	7	30.83	2.2	7.97	2.88	40.50
PHYRU	107	32.50	2.1	7.50	2.83	43.33
SPHAC	36	40.33	2.1	4.40	2.76	46.09
LAMIS	25	30.50	2.0	4.64	2.66	48.75

**ST. 27. AVERAGE SIMILARITY = 75.05**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
TRAIN	77	75.33	3.7	20.77	4.92	4.92
CORAX	86	74.17	3.6	17.70	4.84	9.76
CRUPE	87	54.83	3.1	18.19	4.17	13.93
LAMIH	24	57.83	3.0	5.46	3.94	17.87
LAMIS	25	47.00	2.8	25.19	3.78	21.65
CUTAG	5	50.00	2.8	8.93	3.75	25.40
LOMCL	94	41.50	2.6	7.78	3.49	28.89
DELSA	89	38.67	2.6	10.08	3.41	32.31
POLYU	102	39.67	2.3	3.34	3.04	35.35
CHAME	49	31.50	2.1	4.77	2.85	38.20
DESAC	6	28.00	2.1	7.91	2.81	41.00
DESVI	7	39.17	2.1	2.39	2.77	43.78
PORCO	114	27.50	2.0	3.57	2.63	46.41
PALPA	104	27.50	1.9	5.52	2.60	49.00

**AVERAGE DISSIMILARITY BETWEEN St. 23 og St. 22 = 28.32**

SPECIES	NO	ST. 23.	ST. 22.	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
SACPO	38	.00	23.00	1.01	8.35	3.58	3.58
PTEPA	115	36.17	6.00	.99	1.98	3.48	7.06
COROF	85	6.33	37.00	.86	2.08	3.03	10.09
BONAS	76	33.00	9.67	.80	1.54	2.81	12.90
PNEOP	96	12.33	.00	.65	1.69	2.30	15.21
HALSI	20	1.33	14.67	.63	1.72	2.23	17.44
PHYLL	101	13.50	1.67	.61	2.42	2.16	19.60
PHYCR	108	20.67	7.67	.61	1.49	2.15	21.75
DESVI	7	31.17	15.00	.61	1.28	2.14	23.89

**AVERAGE DISSIMILARITY BETWEEN St. 25 og St. 22 = 26.38**

SPECIES	NO	ST. 25.	ST. 22.	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
AUDOU	68	22.17	20.67	.64	1.32	2.44	2.44
GIFHI	17	13.00	22.67	.60	1.30	2.29	4.73
RHOCO	118	12.17	17.00	.58	1.64	2.20	6.93
BONAS	76	15.33	9.67	.57	1.53	2.16	9.09
DICDI	8	37.83	22.00	.57	1.65	2.15	11.24
ECTOC	9	19.83	10.00	.56	1.28	2.13	13.37
DESVI	7	30.83	15.00	.54	1.04	2.05	15.42
AUDOI	67	33.17	48.00	.53	1.42	2.02	17.44
CALLA	82	12.17	8.33	.53	1.49	2.01	19.45
BRYPL	47	4.50	13.33	.52	1.59	1.96	21.41
CHOTO	3	7.83	.00	.48	1.31	1.84	23.25

## AVERAGE DISSIMILARITY BETWEEN St. 25. og St. 23. = 28.37

SPECIES	NO	ST. 25.	ST. 23.	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
COROF	85	47.50	6.33	1.05	2.96	3.71	3.71
PTEPA	115	7.50	36.17	.83	1.90	2.94	6.65
SACPO	38	17.00	.00	.82	2.54	2.90	9.55
PHYLL	101	.33	13.50	.73	4.07	2.58	12.13
HALSI	20	15.83	1.33	.70	2.83	2.46	14.58
DICDI	8	37.83	20.33	.64	1.42	2.26	16.85
BONAS	76	15.33	33.00	.61	1.48	2.14	18.99
PHYCR	108	8.50	20.67	.60	1.54	2.11	21.09
BRUNT	2	46.17	20.17	.57	1.46	2.01	23.10

## AVERAGE DISSIMILARITY BETWEEN St. 27 og St. 22. = 27.07

SPECIES	NO	ST. 27.	ST. 22.	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
AUDOU	68	40.00	20.67	.81	1.26	2.98	2.98
DILCA	90	.00	14.33	.80	4.25	2.96	5.94
DESVI	7	39.17	15.00	.75	1.46	2.76	8.69
PHYRU	107	19.67	52.67	.67	2.04	2.47	11.16
CALCR	81	17.00	37.00	.62	1.33	2.28	13.44
PTIPL	116	15.67	39.67	.61	1.93	2.24	15.69
PNEOP	96	10.50	.00	.59	1.51	2.19	17.88
ECTOC	9	20.17	10.00	.57	1.37	2.11	19.99
RHOCO	118	11.50	17.00	.56	1.67	2.09	22.07
AUDOI	67	38.33	48.00	.52	1.25	1.93	24.00

## AVERAGE DISSIMILARITY BETWEEN St. 27 og St. 23 = 29.84

SPECIES	NO	ST. 27.	ST. 23.	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
PTEPA	115	1.33	36.17	1.14	3.70	3.81	3.81
SACPO	38	22.67	.00	.98	2.86	3.29	7.11
BONAS	76	5.83	33.00	.96	1.80	3.21	10.31
PHYLL	101	.00	13.50	.79	5.81	2.63	12.95
AUDOU	68	40.00	17.83	.76	1.37	2.54	15.49
DERMA	51	26.17	6.83	.68	1.63	2.27	17.76
HALSI	20	15.17	1.33	.67	2.23	2.26	20.02
COROF	85	21.17	6.33	.58	1.66	1.93	21.95
CALCR	81	17.00	30.83	.55	1.27	1.85	23.80

## AVERAGE DISSIMILARITY BETWEEN St. 27 og St. 25. = 27.26

SPECIES	NO	ST. 27.	ST. 25.	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
AUDOU	68	40.00	22.17	.79	1.39	2.90	2.90
DICDI	8	9.83	37.83	.79	1.75	2.89	5.79
BONAS	76	5.83	15.33	.68	1.72	2.48	8.27
ECTOC	9	20.17	19.83	.59	1.37	2.16	10.43
GIFHI	17	17.00	13.00	.58	1.57	2.13	12.56
RHOCO	118	11.50	12.17	.56	1.13	2.06	14.62
BRUNT	2	19.00	46.17	.55	1.65	2.03	16.65
AUDOI	67	38.33	33.17	.53	1.39	1.95	18.60
CALCR	81	17.00	27.17	.52	1.26	1.91	20.50
COROF	85	21.17	47.50	.52	2.27	1.90	22.40
PNEOP	96	10.50	5.50	.50	1.49	1.82	24.22



## SOURCE DATA FILE : Alle stasjoner

NUMBER OF SPECIES (ROWS) IN DATA SET = 155

NUMBER OF COLUMNS IN DATA SET = 79

NO SPECIES REDUCTION

SPECIES NAME FILE : TRAM2.LST

OMRÅDE	SIZE	COLUMN NUMBERS
A	16	1-16
B	21	17-37
C	21	38-58
D	21	59-79

SQUARE ROOT TRANSFORMATION

BRAY-CURTIS SIMILARITY

Value for percentage cutoff = 50.0 / 25.0

**OMRÅDE A** AVERAGE SIMILARITY = 64.57

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	108	79.94	5.2	5.93	8.08
DELSA	111	45.19	3.7	5.14	13.76
COROF	107	38.56	3.6	6.20	19.39
PHYRU	133	35.75	3.2	4.38	24.36
CERAM	98	37.25	3.2	4.69	29.26
CRUPE	109	31.56	3.0	4.15	33.90
POLYU	128	40.81	2.7	1.77	38.02
HALSI	25	17.44	2.2	4.76	41.41
CHOTO	5	19.19	2.2	2.87	44.79
TRAIN	96	23.37	2.0	2.88	47.85

**OMRÅDE B** AVERAGE SIMILARITY = 72.30

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	108	81.81	3.7	9.22	5.13
BRUNT	3	58.57	2.9	4.63	9.20
DELSA	111	51.67	2.9	9.83	13.22
POLYU	128	51.90	2.8	7.87	17.09
LAMIH	29	45.24	2.6	8.26	20.68
PHYRU	133	44.33	2.6	6.53	24.25
SPHAC	45	41.43	2.4	6.70	27.64
TRAIN	96	43.10	2.3	2.72	30.85
COROF	107	36.19	2.3	5.35	33.99
PHYLL	127	44.05	2.3	3.16	37.10
RHOCO	151	37.86	2.1	2.62	39.98
CRUPE	109	33.57	2.0	3.45	42.82
CHOCR	105	26.81	1.9	4.81	45.43
DILCA	112	27.00	1.8	3.25	47.93

**OMRÅDE C** AVERAGE SIMILARITY = 71.55

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	108	89.67	4.1	13.10	5.66	5.66
LAMIH	29	66.57	3.2	4.61	4.51	10.17
TRAIN	96	51.52	3.0	11.23	4.15	14.32
PHYRU	133	50.48	2.9	10.42	4.10	18.41
POLYU	128	49.38	2.7	2.77	3.73	22.15
DELSA	111	42.81	2.5	4.27	3.52	25.67
CHAME	64	34.67	2.3	6.48	3.25	28.92
PTIPL	149	34.81	2.3	6.38	3.21	32.13
SPHAC	45	39.67	2.2	2.38	3.11	35.25
CALCR	102	35.76	2.2	3.19	3.04	38.29
AUDOI	85	36.76	2.1	3.55	2.98	41.27
PALPA	130	26.86	2.0	7.32	2.85	44.12
CRUPE	109	32.29	2.0	2.20	2.77	46.89
PHYLL	127	29.10	1.9	4.05	2.71	49.60

**OMRÅDE D** AVERAGE SIMILARITY = 72.87

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	108	76.90	3.7	15.43	5.01	5.01
TRAIN	96	71.10	3.5	16.34	4.81	9.82
LAMIH	29	59.05	3.0	6.46	4.10	13.92
DELSA	111	43.05	2.6	8.07	3.63	17.55
CRUPE	109	45.38	2.6	5.88	3.61	21.16
CUTAG	8	44.24	2.6	5.51	3.54	24.70
LAMIS	30	39.76	2.5	5.87	3.40	28.09
POLYU	128	41.43	2.4	5.20	3.33	31.43
SPHAC	45	42.81	2.3	3.71	3.18	34.61
LOMCL	120	33.90	2.2	4.84	3.05	37.66
PHYRU	133	34.62	2.1	3.69	2.82	40.49
AUDOI	85	39.62	2.1	3.47	2.82	43.30
PALPA	130	28.24	2.0	5.19	2.73	46.03
CHAME	64	26.14	1.9	4.81	2.64	48.67

AVERAGE DISSIMILARITY BETWEEN Område B og A = 38.75

SPECIES	NO	OMR. B	OMR. A	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
SPHAC	45	41.43	9.31	1.10	1.67	2.85	2.85
LAMIS	30	33.95	9.38	.96	1.53	2.47	5.31
LAMIH	29	45.24	18.56	.88	1.30	2.28	7.59
BRUNT	3	58.57	22.13	.87	1.54	2.25	9.84
RHOCO	151	37.86	13.19	.86	1.51	2.23	12.07
CALCR	102	16.71	1.31	.82	2.11	2.13	14.19
PNEOP	122	21.00	4.56	.78	1.54	2.02	16.21
PTEPA	148	15.29	14.69	.74	1.44	1.92	18.13
SPHPL	53	12.86	.75	.74	1.66	1.90	20.03
AUDOI	85	24.95	13.62	.73	1.39	1.89	21.92
BONAS	94	25.43	17.19	.73	1.18	1.88	23.80

AVERAGE DISSIMILARITY BETWEEN Område C og A = 45.38

SPECIES	NO	OMR. C	OMR. A	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
PTIPL	149	34.81	.75	1.43	4.01	3.15	3.15
PALPA	130	26.86	.00	1.31	5.90	2.88	6.03
CALCR	102	35.76	1.31	1.30	2.78	2.86	8.90
MEMAL	124	26.81	.00	1.29	4.21	2.84	11.74
LAMIH	29	66.57	18.56	1.24	1.62	2.74	14.48
SPHAC	45	39.67	9.31	1.11	1.66	2.44	16.92
AUDOU	86	23.76	5.56	.91	1.34	2.01	18.94
PNEOP	122	26.81	4.56	.90	1.27	1.98	20.91
SPHPL	53	16.19	.75	.87	1.75	1.91	22.83
ALARI	1	16.62	.00	.85	1.43	1.88	24.71

AVERAGE DISSIMILARITY BETWEEN **Område C og B = 35.11**

SPECIES	NO	OMR. C		OMR. B		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
LAMIS	30	11.48	33.95	.90	1.53	2.57	2.57		
AUDOU	86	23.76	5.24	.76	1.39	2.17	4.74		
LOMCL	120	5.00	27.90	.76	1.83	2.17	6.91		
ALARI	1	16.62	.00	.72	1.44	2.05	8.96		
BRUNT	3	26.57	58.57	.69	1.37	1.96	10.93		
HALOV	73	16.05	1.43	.67	1.57	1.91	12.84		
PNEOP	122	26.81	21.00	.66	1.36	1.87	14.71		
PTIPL	149	34.81	9.43	.65	2.02	1.85	16.56		
AUDOI	85	36.76	24.95	.65	1.39	1.85	18.41		
CHAME	64	34.67	13.29	.55	1.67	1.58	19.99		
APORU	92	9.52	15.52	.54	1.37	1.55	21.54		
DESVI	10	14.76	14.24	.54	1.39	1.54	23.07		
ECTOC	13	15.10	23.43	.53	1.39	1.52	24.59		

AVERAGE DISSIMILARITY BETWEEN **Område D og A = 51.14**

SPECIES	NO	OMR. D		OMR. A		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
CUTAG	8	44.24	.00	1.66	5.09	3.25	3.25		
PALPA	130	28.24	.00	1.31	5.00	2.57	5.82		
SPHAC	45	42.81	9.31	1.13	1.66	2.21	8.03		
PTIPL	149	23.00	.75	1.11	2.57	2.16	10.20		
LAMIH	29	59.05	18.56	1.11	1.50	2.16	12.36		
MEMAL	124	19.86	.00	1.10	4.65	2.15	14.51		
CERAM	98	3.62	37.25	1.09	2.33	2.13	16.64		
CALCR	102	26.71	1.31	1.06	2.26	2.08	18.72		
DICDI	12	22.57	.00	1.04	1.80	2.04	20.75		
TRAIN	96	71.10	23.37	1.03	1.84	2.01	22.77		
LAMIS	30	39.76	9.38	1.03	1.76	2.01	24.78		

AVERAGE DISSIMILARITY BETWEEN **Område D og B = 40.39**

SPECIES	NO	OMR.D		OMR. B		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
PHYLL	127	4.19	44.05	1.12	2.14	2.77	2.77		
CUTAG	8	44.24	8.33	1.00	1.96	2.48	5.25		
ODODE	126	.29	24.48	1.00	3.31	2.47	7.72		
DICDI	12	22.57	.00	.88	1.82	2.18	9.90		
CHOCR	105	2.43	26.81	.83	2.65	2.05	11.95		
DILCA	112	4.71	27.00	.80	2.00	1.98	13.93		
ALARI	1	14.71	.00	.78	3.09	1.93	15.86		
AUDOU	86	25.81	5.24	.78	1.40	1.92	17.78		
RHOCO	151	13.62	37.86	.72	1.64	1.78	19.57		
AUDOI	85	39.62	24.95	.68	1.40	1.68	21.24		
APORU	92	1.05	15.52	.67	1.62	1.66	22.91		
GIFHI	22	13.67	.00	.66	1.57	1.64	24.55		

AVERAGE DISSIMILARITY BETWEEN **Område D og C = 36.32**

SPECIES	NO	OMR. D		OMR. C		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
CUTAG	8	44.24	5.90	1.13	2.36	3.11	3.11		
LAMIS	30	39.76	11.48	.98	1.83	2.70	5.81		
LOMCL	120	33.90	5.00	.89	2.29	2.45	8.26		
PHYLL	127	4.19	29.10	.88	1.95	2.43	10.70		
DICDI	12	22.57	.38	.88	1.79	2.42	13.11		
DESAC	9	25.67	4.95	.74	1.80	2.03	15.14		
PNEOP	122	8.10	26.81	.73	1.34	2.00	17.14		
PORCO	147	20.86	3.90	.71	1.78	1.96	19.11		
ODODE	126	.29	14.71	.70	1.74	1.94	21.05		
DERMA	69	18.29	3.62	.70	1.64	1.92	22.96		
AUDOU	86	25.81	23.76	.69	1.32	1.90	24.87		

## SOURCE DATA FILE : OMRÅDE A - ÅR

NUMBER OF SPECIES (ROWS) IN DATA SET = 90

NUMBER OF COLUMNS IN DATA SET = 16

NO SPECIES REDUCTION

SPECIES NAME FILE : A.LST

## GROUP SIZE COLUMN NUMBERS

Year	Group Size	Column Numbers
1990	3	1, 4, 10
1991	2	5, 11
1992	2	6, 12
1993	2	7, 13
1994	3	2, 8, 14
<b>1995</b>	<b>4</b>	<b>3, 9, 15, 16</b>

## SQUARE ROOT TRANSFORMATION

## BRAY-CURTIS SIMILARITY

Value for percentage cutoff = 50.0

**1990** AVERAGE SIMILARITY = 58.68

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CERAM	51	72.00	5.7	6.11	9.75	9.75
CORAX	58	70.00	5.2	25.43	8.84	18.59
COROF	57	37.00	4.1	7.45	7.05	25.65
CRUPE	59	38.33	4.1	7.14	7.01	32.66
GIFOV	8	18.67	2.9	8.24	5.00	37.66
DELSA	61	36.67	2.8	2.85	4.73	42.39
PHYRU	76	28.00	2.7	3.42	4.53	46.92

**1991** AVERAGE SIMILARITY = 75.89

For få stasjoner

**1992** AVERAGE SIMILARITY = 73.61

For få stasjoner

**1993** AVERAGE SIMILARITY = 80.69

For få stasjoner

**1994** AVERAGE SIMILARITY = 70.76

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	58	86.67	7.0	8.14	9.91	9.91
DELSA	61	48.00	5.0	12.68	7.07	16.98
COROF	57	33.00	4.1	5.44	5.82	22.80
BRUNT	1	34.00	4.0	8.73	5.69	28.49
PHYRU	76	33.33	3.8	7.02	5.36	33.85
CERAM	51	22.67	3.3	13.12	4.60	38.45
CRUPE	59	29.00	3.1	3.25	4.32	42.77
HALSI	9	16.67	2.9	8.74	4.10	46.86

**1995 AVERAGE SIMILARITY = 69.97**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	58	89.50	5.3	9.01	7.59	7.59
COROF	57	42.25	3.4	7.91	4.86	12.45
DELSA	61	42.25	3.4	19.32	4.86	17.31
LAMIH	11	35.00	2.8	6.46	4.02	21.32
CERAM	51	27.00	2.8	5.42	3.99	25.32
PHYRU	76	30.25	2.8	3.39	3.96	29.28
TRAIN	49	35.50	2.8	7.75	3.94	33.22
CRUPE	59	31.25	2.7	6.59	3.92	37.14
CHOTO	2	22.25	2.5	6.85	3.50	40.64
AUDOI	42	26.75	2.2	4.12	3.18	43.82
BRUNT	1	22.00	2.2	6.27	3.11	46.93
PHYLL	73	24.50	2.1	3.13	3.01	49.94

**AVERAGE DISSIMILARITY BETWEEN 1990 OG 1991 = 39.84**

SPECIES	NO	1991	1990	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
PTEPA	86	22.50	33.33	1.64	6.62	4.13	4.13
LAMIS	12	32.50	3.33	1.56	2.49	3.91	8.04
GIFOV	8	.00	18.67	1.45	5.99	3.64	11.68
POLYU	74	48.50	52.67	1.29	1.19	3.24	14.92
DESVI	5	17.50	.67	1.20	2.88	3.02	17.95
AUDOI	42	.00	13.33	1.19	2.06	2.98	20.93
POLEL	81	15.00	.67	1.12	3.06	2.82	23.74

**AVERAGE DISSIMILARITY BETWEEN 1992 og 1990 = 41.64**

SPECIES	NO	1992	1990	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
PTEPA	86	23.00	33.33	1.46	7.16	3.50	3.50
PHYLL	73	44.50	9.33	1.28	1.72	3.08	6.57
GIFOV	8	.00	18.67	1.28	6.87	3.07	9.65
RHOCO	88	26.00	2.33	1.26	2.58	3.03	12.67
APORU	45	26.00	4.00	1.17	1.91	2.81	15.49
BRUNT	1	31.50	2.67	1.14	1.56	2.74	18.23
PHYCR	77	26.00	3.67	1.13	1.99	2.72	20.94
POLYU	74	51.50	52.67	1.11	1.11	2.68	23.62

**AVERAGE DISSIMILARITY BETWEEN GROUPS 1992 og 1991 = 30.13**

SPECIES	NO	1992	1991	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
AUDOI	42	23.00	.00	1.37	8.68	4.54	4.54
RHOCO	88	26.00	.50	1.31	5.00	4.35	8.89
TRAIN	49	45.00	7.00	1.19	3.77	3.95	12.83
PHYCR	77	26.00	4.00	1.08	1.86	3.58	16.41
LAMIS	12	9.50	32.50	1.03	1.31	3.41	19.82
APORU	45	26.00	4.50	.87	2.94	2.88	22.70

**AVERAGE DISSIMILARITY BETWEEN 1993 og 1990 = 44.48**

SPECIES	NO	1993	1990	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
LAMIH	11	39.50	.00	1.81	6.67	4.06	4.06
SPHAC	18	28.00	.00	1.52	7.62	3.43	7.49
ODODE	72	22.50	.33	1.28	5.70	2.87	10.36
POLYV	75	19.50	.00	1.27	9.03	2.86	13.22
BRUNT	1	32.50	2.67	1.27	2.64	2.86	16.08
GIFOV	8	.00	18.67	1.25	7.85	2.81	18.89
RHOCO	88	27.00	2.33	1.21	1.89	2.72	21.61
POLYU	74	50.00	52.67	1.09	1.17	2.46	24.07

## AVERAGE DISSIMILARITY BETWEEN 1993 og 1991 = 28.36

SPECIES	NO	1993		1991		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
LAMIH	11	39.50		1.00		1.56	3.96	5.50	5.50
RHOCO	88	27.00		.50		1.26	2.49	4.45	9.94
POLYV	75	19.50		.00		1.23	11.46	4.34	14.28
PTEPA	86	2.00		22.50		1.05	2.86	3.69	17.97
SPHAC	18	28.00		5.50		1.04	1.68	3.66	21.63
AUDOI	42	11.00		.00		.90	3.57	3.16	24.79

## AVERAGE DISSIMILARITY BETWEEN 1993 og 1992 = 24.53

SPECIES	NO	1993		1992		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
LAMIH	11	39.50		10.00		1.04	1.43	4.23	4.23
PHYCR	77	3.00		26.00		.98	2.44	3.98	8.21
PTEPA	86	2.00		23.00		.96	2.90	3.90	12.10
BROBY	50	19.50		3.50		.78	1.69	3.18	15.28
POLYV	75	19.50		4.50		.75	1.56	3.06	18.34
SPHAC	18	28.00		15.00		.74	.98	3.02	21.36
SPHCI	20	.00		8.00		.70	10.98	2.85	24.21

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1990 = 45.38

SPECIES	NO	1994		1990		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
BRUNT	1	34.00		2.67		1.66	2.71	3.65	3.65
POLYU	74	29.00		52.67		1.58	1.87	3.49	7.14
GIFOV	8	.00		18.67		1.58	5.54	3.49	10.64
LAMIH	11	18.67		.00		1.55	6.90	3.41	14.05
CERAM	51	22.67		72.00		1.39	3.22	3.07	17.12
HILRU	68	2.67		30.00		1.37	2.42	3.02	20.13
BONAS	47	.67		24.33		1.31	1.48	2.89	23.02

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1991 = 34.76

SPECIES	NO	1994		1991		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
PTEPA	86	.00		22.50		1.66	5.77	4.78	4.78
LAMIS	12	3.33		32.50		1.52	2.61	4.36	9.13
LAMIH	11	18.67		1.00		1.25	3.15	3.60	12.73
DESVI	5	2.67		17.50		1.04	1.95	2.98	15.71
SPONP	37	5.33		14.00		1.00	1.45	2.88	18.60
BRYPL	25	.00		9.50		.93	2.09	2.68	21.27
ULVUL	40	2.00		13.00		.93	1.63	2.67	23.94

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1992 = 37.29

SPECIES	NO	1994		1992		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
APORU	45	.00		26.00		1.54	8.48	4.12	4.12
PTEPA	86	.00		23.00		1.47	6.24	3.95	8.07
BONAS	47	.67		25.00		1.35	4.34	3.63	11.69
TRAIN	49	9.67		45.00		1.23	2.26	3.30	14.99
AUDOI	42	1.00		23.00		1.23	4.57	3.30	18.29
DESAC	4	1.67		25.00		1.14	11.38	3.07	21.36
PHYCR	77	5.00		26.00		1.06	1.79	2.86	24.21

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1993 = 33.56

SPECIES	NO	1994		1993		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
BONAS	47	.67	29.50	1.48	5.27	4.40	4.40		
BROBY	50	.33	19.50	1.21	3.93	3.62	8.02		
POLYV	75	.67	19.50	1.19	3.94	3.55	11.57		
SPHAC	18	8.00	28.00	.92	1.45	2.73	14.30		
TRAIN	49	9.67	31.50	.87	1.79	2.59	16.89		
LAMIS	12	3.33	17.50	.85	1.92	2.54	19.43		
APORU	45	.00	8.00	.84	9.07	2.52	21.95		
LOMCL	69	5.00	23.50	.78	5.81	2.34	24.29		

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1990 = 41.48

SPECIES	NO	1995		1990		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
LAMIH	11	35.00	.00	1.80	5.36	4.34	4.34		
POLYU	74	27.00	52.67	1.37	1.89	3.31	7.65		
PTEPA	86	10.00	33.33	1.19	1.06	2.87	10.52		
AUDOU	43	17.75	.00	1.19	2.58	2.87	13.39		
HILRU	68	3.75	30.00	1.18	1.99	2.85	16.24		
BRUNT	1	22.00	2.67	1.07	1.57	2.59	18.83		
GIFOV	8	2.00	18.67	1.04	3.07	2.50	21.33		
CERAM	51	27.00	72.00	1.04	4.59	2.50	23.83		

## AVERAGE DISSIMILARITY BETWEEN GROUPS 1995 og 1991 = 35.23

SPECIES	NO	1995		1991		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
LAMIH	11	35.00	1.00	1.53	3.48	4.35	4.35		
AUDOI	42	26.75	.00	1.47	4.32	4.18	8.53		
LAMIS	12	2.75	32.50	1.32	3.01	3.74	12.27		
AUDOU	43	17.75	.00	1.14	2.56	3.25	15.52		
RHOCO	88	18.25	.50	1.06	1.96	3.01	18.53		
PTEPA	86	10.00	22.50	.99	1.71	2.81	21.34		
TRAIN	49	35.50	7.00	.96	2.42	2.72	24.06		

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1992 = 30.91

SPECIES	NO	1995		1992		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
AUDOU	43	17.75	.00	1.03	2.55	3.32	3.32		
LAMIH	11	35.00	10.00	1.01	1.45	3.27	6.59		
PTEPA	86	10.00	23.00	.89	1.71	2.88	9.47		
DESAC	4	4.50	25.00	.89	2.28	2.87	12.34		
APORU	45	5.50	26.00	.86	1.74	2.77	15.11		
SPHCI	20	.00	8.00	.75	8.28	2.43	17.54		
SPHAC	18	7.00	15.00	.72	1.22	2.34	19.88		
DILCA	62	10.00	15.00	.68	1.42	2.19	22.07		
POLYU	74	27.00	51.50	.66	1.10	2.13	24.20		

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1993 = 29.19

SPECIES	NO	1995		1993		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
AUDOU	43	17.75	.00	1.00	2.57	3.44	3.44		
SPHAC	18	7.00	28.00	.92	1.58	3.14	6.58		
POLYV	75	2.50	19.50	.88	2.69	3.03	9.61		
DILCA	62	10.00	26.00	.84	1.27	2.89	12.49		
LAMIS	12	2.75	17.50	.76	2.28	2.60	15.10		
POLBR	80	.50	9.50	.66	1.81	2.26	17.36		
BONAS	47	17.00	29.50	.65	1.05	2.21	19.57		
EPIFL	32	10.00	.00	.63	1.14	2.15	21.72		
POLYU	74	27.00	50.00	.62	1.06	2.11	23.82		

AVERAGE DISSIMILARITY BETWEEN 1995 og 1994 = 33.35

SPECIES	NO	1995		1994		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
AUDOI	42	26.75	1.00	1.33	3.05	3.99	3.99		
TRAIN	49	35.50	9.67	1.02	1.95	3.06	7.05		
BONAS	47	17.00	.67	1.00	1.58	3.01	10.06		
AUDOU	43	17.75	6.00	.95	1.55	2.86	12.93		
DILCA	62	10.00	16.33	.86	1.37	2.58	15.51		
SPONP	37	12.75	5.33	.86	1.60	2.56	18.07		
BROBY	50	10.00	.33	.80	1.70	2.41	20.48		
EPIFL	32	10.00	.00	.77	1.17	2.32	22.81		

**SOURCE DATA FILE : OMRÅDE B - ÅR**

NUMBER OF SPECIES (ROWS) IN DATA SET = 110

NUMBER OF COLUMNS IN DATA SET = 21

NO SPECIES REDUCTION

SPECIES NAME FILE : B.LST

GROUP SIZE COLUMN NUMBERS

YEAR	GROUP SIZE	COLUMN NUMBERS
1990	4	1, 7, 13, 19
1991	4	2, 8, 14, 20
1992	3	3, 9, 15
1993	3	4, 10, 16
1994	3	5, 11, 17
1995	4	6, 12, 18, 21

SQUARE ROOT TRANSFORMATION

BRAY-CURTIS SIMILARITY

Value for percentage cutoff = 50.0 / 25.0



**1990 AVERAGE SIMILARITY = 71.64**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	70	79.50	3.9	23.43	5.48	5.48
LAMIS	16	48.75	3.0	29.25	4.25	9.73
CRUPE	71	46.75	2.9	11.68	4.03	13.76
DELSA	73	41.50	2.8	10.61	3.88	17.64
SPHAC	22	54.75	2.8	4.86	3.85	21.49
POLYU	89	48.25	2.7	4.21	3.73	25.22
PHYRU	92	42.00	2.6	8.99	3.65	28.86
BRUNT	1	52.50	2.6	3.05	3.64	32.51
CERAM	61	39.50	2.5	6.16	3.50	36.01
LAMIH	15	31.25	2.4	13.16	3.33	39.34
TRAIN	59	37.00	2.3	6.21	3.27	42.62
CALCR	65	25.25	2.1	19.08	2.96	45.58
LOMCL	82	32.00	2.1	4.64	2.94	48.52

**1991 AVERAGE SIMILARITY = 76.95**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	70	84.25	4.0	53.19	5.20	5.20
BRUNT	1	65.25	3.4	24.42	4.43	9.63
POLYU	89	52.00	3.0	18.27	3.93	13.56
DELSA	73	50.25	3.0	17.91	3.91	17.47
COROF	69	41.50	2.8	56.92	3.69	21.16
PHYRU	92	45.25	2.8	46.09	3.59	24.76
LAMIS	16	49.50	2.7	4.24	3.45	28.21
LOMCL	82	36.50	2.6	22.78	3.39	31.60
LAMIH	15	39.00	2.6	70.36	3.37	34.97
BONAS	57	34.50	2.5	46.97	3.27	38.24
RHOCO	108	36.50	2.3	6.01	2.99	41.23
SPHAC	22	31.25	2.3	30.23	2.95	44.18
TRAIN	59	28.00	2.2	14.87	2.89	47.08
BROBY	60	23.25	2.0	13.75	2.62	49.69

**1992 AVERAGE SIMILARITY = 77.98**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	70	82.33	3.6	29.05	4.58	4.58
BRUNT	1	69.33	3.2	14.23	4.14	8.72
DELSA	73	57.67	3.0	38.77	3.89	12.61
TRAIN	59	50.67	2.8	73.89	3.63	16.24
POLYU	89	54.67	2.8	9.86	3.63	19.87
LAMIS	16	48.67	2.6	14.23	3.38	23.25
SPHAC	22	42.33	2.6	43.92	3.33	26.58
PHYLL	88	57.33	2.6	3.77	3.29	29.87
BONAS	57	45.00	2.6	69.17	3.28	33.15
PHYRU	92	46.67	2.5	9.63	3.26	36.41
LAMIH	15	46.00	2.5	41.27	3.17	39.58
CRUPE	71	38.67	2.4	9.30	3.04	42.62
RHOCO	108	38.67	2.2	6.01	2.76	45.38
COROF	69	30.00	2.1	50.59	2.68	48.06

**1993 AVERAGE SIMILARITY = 77.75**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	70	83.00	3.3	13.56	4.22	4.22
BRUNT	1	64.67	3.0	96.06	3.82	8.04
DELSA	73	61.33	2.9	46.89	3.75	11.79
POLYU	89	57.33	2.8	40.65	3.64	15.43
RHOCO	108	57.00	2.8	129.74	3.57	19.00
PHYRU	92	54.00	2.7	25.80	3.47	22.47
LAMIH	15	59.67	2.7	30.49	3.45	25.92
COROF	69	47.33	2.4	33.15	3.06	28.99
DILCA	74	38.67	2.2	8.08	2.78	31.77
ODODE	87	31.33	2.1	304.21	2.67	34.44
LOMCL	82	31.33	2.0	32.89	2.58	37.02
BONAS	57	34.67	2.0	16.83	2.58	39.60
CHOCR	67	35.67	2.0	10.44	2.54	42.14
SPHAC	22	37.33	2.0	6.26	2.52	44.66
PHYLL	88	42.00	2.0	5.28	2.51	47.18
AUDOI	51	34.33	1.7	4.42	2.25	49.42

**1994 AVERAGE SIMILARITY = 75.54**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	70	85.00	4.6	36.26	6.09	6.09
PHYLL	88	68.67	3.8	7.36	4.99	11.08
BRUNT	1	55.00	3.7	78.13	4.93	16.01
DELSA	73	55.00	3.7	28.40	4.89	20.90
LAMIH	15	50.67	3.5	18.03	4.60	25.50
TRAIN	59	49.00	3.4	19.34	4.44	29.94
SPHAC	22	40.67	3.1	12.58	4.12	34.06
RHOCO	108	40.33	3.0	11.10	4.02	38.08
PHYRU	92	43.67	2.9	5.94	3.89	41.98
POLYU	89	39.00	2.9	19.00	3.79	45.77
ODODE	87	31.67	2.6	10.89	3.51	49.27

**1995 AVERAGE SIMILARITY = 77.32**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	70	78.00	3.1	11.01	3.95	3.95
TRAIN	59	60.50	2.8	31.63	3.68	7.64
POLYU	89	59.00	2.7	13.46	3.43	11.06
DELSA	73	49.00	2.5	23.36	3.29	14.36
LAMIH	15	50.00	2.5	12.52	3.27	17.63
CRUPE	71	41.00	2.3	13.84	2.96	20.59
SPHAC	22	41.25	2.2	8.50	2.88	23.47
AUDOI	51	58.75	2.2	3.57	2.86	26.34
BRUNT	1	48.00	2.1	3.83	2.77	29.11
ECTOC	9	37.75	2.1	8.22	2.67	31.77
RHOCO	108	41.75	2.1	6.05	2.65	34.43
PHYRU	92	37.25	2.0	6.46	2.61	37.04
DILCA	74	30.00	2.0	54.43	2.54	39.57
PHYLL	88	32.50	1.9	12.78	2.51	42.08
COROF	69	35.00	1.9	7.54	2.50	44.58
CHOCR	67	27.75	1.7	5.53	2.23	46.80
ODODE	87	22.75	1.7	28.09	2.16	48.96

**AVERAGE DISSIMILARITY BETWEEN 1991 og 1990 = 28.10**

SPECIES	NO	1991	1990	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
CHYVE	68	.25	14.50	.80	6.06	2.83	2.83
DESVI	7	18.50	2.00	.78	1.86	2.78	5.60
PNEOP	84	16.50	23.75	.78	2.12	2.76	8.36
POLYV	90	12.00	.00	.75	3.28	2.66	11.02
AUDOI	51	12.00	15.50	.63	1.29	2.23	13.25
RHOCO	108	36.50	18.50	.59	1.11	2.11	15.36
PTEPA	105	11.00	18.25	.58	1.39	2.05	17.41
SPHPL	27	6.50	17.00	.58	1.46	2.05	19.46
PHYLL	88	31.25	41.50	.57	1.86	2.05	21.50

ECTOC 9 24.25 22.50 .55 1.52 1.96 23.46

**AVERAGE DISSIMILARITY BETWEEN 1992 og 1990 = 28.39**

SPECIES	NO	1992		1990		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
CHYVE	68	.00	14.50	.81	9.39	2.86	2.86		
PHYCR	93	23.67	4.25	.78	1.87	2.73	5.59		
CUTAG	5	18.00	.00	.74	1.33	2.62	8.21		
PNEOP	84	25.33	23.75	.74	1.09	2.61	10.82		
ECTOC	9	16.00	22.50	.62	1.22	2.18	13.00		
MEMAL	86	19.00	4.50	.61	1.63	2.16	15.16		
RHOCO	108	38.67	18.50	.59	1.12	2.08	17.24		
AUDOI	51	17.33	15.50	.56	1.33	1.99	19.23		
LOMOR	83	14.67	4.50	.56	1.44	1.96	21.19		
PHYLL	88	57.33	41.50	.54	1.16	1.91	23.10		

**AVERAGE DISSIMILARITY BETWEEN 1992 og 1991 = 25.19**

SPECIES	NO	1992		1991		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
PHYCR	93	23.67	6.25	.68	1.63	2.70	2.70		
PORCO	104	14.33	1.50	.67	2.70	2.68	5.38		
APORU	55	27.67	12.50	.64	1.66	2.55	7.93		
AUDOI	51	17.33	12.00	.64	1.45	2.53	10.46		
CUTAG	5	18.00	3.75	.62	1.91	2.47	12.92		
ECTOC	9	16.00	24.25	.61	1.83	2.42	15.34		
PNEOP	84	25.33	16.50	.61	1.67	2.41	17.75		
CALLA	66	11.00	.50	.58	1.84	2.30	20.05		
LOMOR	83	14.67	3.50	.56	1.55	2.23	22.28		
PHYLL	88	57.33	31.25	.52	1.49	2.06	24.34		

**AVERAGE DISSIMILARITY BETWEEN 1993 og 1990 = 29.86**

SPECIES	NO	1993		1990		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
CUTAG	5	22.00	.00	.95	6.19	3.18	3.18		
DESVI	7	25.00	2.00	.88	2.95	2.95	6.13		
RHOCO	108	57.00	18.50	.81	1.57	2.71	8.84		
CHYVE	68	.00	14.50	.78	9.36	2.60	11.45		
PNEOP	84	22.33	23.75	.71	1.88	2.39	13.83		
BRYPL	32	15.33	.50	.64	1.52	2.13	15.96		
AUDOI	51	34.33	15.50	.62	1.38	2.09	18.05		
ECTOC	9	32.33	22.50	.59	1.58	1.96	20.01		
TRAIN	59	34.67	37.00	.58	1.13	1.96	21.97		
SPHPL	27	18.33	17.00	.55	1.68	1.83	23.80		

**AVERAGE DISSIMILARITY BETWEEN 1993 og 1991 = 24.98**

SPECIES	NO	1993		1991		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
AUDOI	51	34.33	12.00	.76	1.52	3.03	3.03		
CALCO	63	12.00	.00	.63	1.99	2.53	5.56		
TRAIN	59	34.67	28.00	.62	1.80	2.48	8.04		
CUTAG	5	22.00	3.75	.61	2.29	2.46	10.50		
PORCO	104	12.00	1.50	.57	2.15	2.30	12.80		
APORU	55	20.67	12.50	.54	1.77	2.15	14.96		
BRYPL	32	15.33	3.00	.50	1.25	1.99	16.95		
LAMIS	16	31.67	49.50	.48	1.19	1.90	18.85		
PHYCR	93	10.00	6.25	.45	1.23	1.79	20.64		
LOMOR	83	10.00	3.50	.45	1.62	1.78	22.42		
PTEPA	105	17.33	11.00	.44	1.58	1.77	24.19		

## AVERAGE DISSIMILARITY BETWEEN 1993 og 1992 = 22.24

SPECIES	NO	1993		1992		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
ECTOC	9	32.33	16.00	.60	1.33	2.71	2.71		
BRYPL	32	15.33	1.00	.58	1.49	2.61	5.31		
AUDOI	51	34.33	17.33	.57	1.60	2.58	7.90		
DESVI	7	25.00	5.33	.53	3.72	2.39	10.29		
PNEOP	84	22.33	25.33	.52	1.38	2.34	12.63		
TRAIN	59	34.67	50.67	.50	.75	2.24	14.87		
PHYCR	93	10.00	23.67	.50	1.24	2.23	17.10		
CALCO	63	12.00	1.00	.45	1.34	2.02	19.12		
FURLU	77	9.67	8.00	.42	1.24	1.89	21.02		
CUTAG	5	22.00	18.00	.40	1.02	1.82	22.83		
HALSI	13	21.67	6.67	.39	1.62	1.77	24.61		

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1990 = 32.68

SPECIES	NO	1994		1990		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
BONAS	57	.00	25.25	1.16	3.55	3.54	3.54		
LAMIS	16	14.67	48.75	.93	1.65	2.84	6.38		
CHYVE	68	.00	14.50	.91	9.14	2.77	9.15		
CERAM	61	9.67	39.50	.89	1.70	2.73	11.88		
AUDOU	52	13.67	.00	.87	5.65	2.66	14.54		
PNEOP	84	16.33	23.75	.82	1.40	2.51	17.05		
BROBY	60	3.33	23.25	.69	1.83	2.12	19.17		
RHOCO	108	40.33	18.50	.67	1.15	2.06	21.23		
APORU	55	5.33	15.50	.67	1.58	2.04	23.27		

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1991 = 29.70

SPECIES	NO	1994		1991		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
BONAS	57	.00	34.50	1.39	15.73	4.69	4.69		
LAMIS	16	14.67	49.50	.94	1.58	3.18	7.87		
AUDOU	52	13.67	.00	.86	5.82	2.91	10.78		
LOMCL	82	9.67	36.50	.75	2.45	2.54	13.31		
BROBY	60	3.33	23.25	.73	4.49	2.44	15.76		
ECTOC	9	3.00	24.25	.72	2.14	2.44	18.19		
PHYLL	88	68.67	31.25	.71	1.90	2.38	20.58		
SPHCI	26	.00	10.75	.69	1.85	2.33	22.91		

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1992 = 28.67

SPECIES	NO	1994		1992		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
BONAS	57	.00	45.00	1.51	11.84	5.27	5.27		
APORU	55	5.33	27.67	.89	1.85	3.10	8.36		
LAMIS	16	14.67	48.67	.87	1.57	3.05	11.41		
PORCO	104	.00	14.33	.85	10.42	2.97	14.38		
AUDOU	52	13.67	.00	.82	5.72	2.87	17.25		
CUTAG	5	.67	18.00	.75	1.43	2.61	19.86		
SPHCI	26	.00	11.67	.71	2.39	2.49	22.35		
CALLA	66	.00	11.00	.70	2.26	2.42	24.78		

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1993 = 30.07

SPECIES	NO	1994	1993	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
BONAS	57	.00	34.67	1.26	9.87	4.20	4.20
CUTAG	5	.67	22.00	.90	3.94	2.99	7.19
ECTOC	9	3.00	32.33	.79	1.92	2.62	9.81
AUDOU	52	13.67	.00	.79	5.68	2.61	12.42
PORCO	104	.00	12.00	.74	4.78	2.46	14.87
APORU	55	5.33	20.67	.70	1.57	2.32	17.19
LAMIS	16	14.67	31.67	.67	1.48	2.24	19.43
AUDOI	51	8.00	34.33	.67	1.82	2.23	21.66
SPHCI	26	.00	8.67	.61	3.96	2.04	23.70

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1990 = 31.58

SPECIES	NO	1995	1990	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
LAMIS	16	8.75	48.75	1.02	2.19	3.23	3.23
AUDOI	51	58.75	15.50	.92	1.59	2.91	6.14
DESVI	7	24.00	2.00	.84	2.14	2.65	8.79
HYMSE	58	17.00	.00	.82	4.96	2.60	11.40
AUDOU	52	17.25	.00	.81	3.17	2.55	13.95
CHYVE	68	.00	14.50	.78	9.25	2.47	16.41
PNEOP	84	22.00	23.75	.71	2.34	2.26	18.68
ECTOC	9	37.75	22.50	.62	2.38	1.98	20.65
RHOCO	108	41.75	18.50	.61	1.21	1.94	22.59
SPHPL	27	14.75	17.00	.59	1.45	1.86	24.46

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1991 = 28.29

SPECIES	NO	1995	1991	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
AUDOI	51	58.75	12.00	1.07	1.78	3.77	3.77
LAMIS	16	8.75	49.50	1.02	1.95	3.59	7.36
HYMSE	58	17.00	.00	.82	5.04	2.89	10.26
AUDOU	52	17.25	.00	.80	3.19	2.84	13.10
CALCO	63	15.75	.00	.66	1.36	2.32	15.41
APORU	55	13.25	12.50	.52	1.28	1.82	17.24
TRAIN	59	60.50	28.00	.51	4.92	1.80	19.04
BONAS	57	14.00	34.50	.48	1.63	1.71	20.75
PHYCR	93	11.25	6.25	.46	1.36	1.64	22.39
AUDOA	50	10.00	.00	.46	.93	1.63	24.02

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1992 = 27.35

SPECIES	NO	1995	1992	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
LAMIS	16	8.75	48.67	.97	2.10	3.54	3.54
AUDOI	51	58.75	17.33	.83	1.66	3.04	6.58
HYMSE	58	17.00	.00	.78	4.95	2.87	9.45
AUDOU	52	17.25	.00	.77	3.15	2.81	12.27
ECTOC	9	37.75	16.00	.66	1.62	2.42	14.69
BONAS	57	14.00	45.00	.62	2.08	2.28	16.97
CALCO	63	15.75	1.00	.55	1.45	2.02	18.99
APORU	55	13.25	27.67	.53	1.55	1.94	20.93
CUTAG	5	9.50	18.00	.52	1.31	1.88	22.82
PNEOP	84	22.00	25.33	.50	1.54	1.84	24.65

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1993 = 25.49

SPECIES	1995		1993		AV TERM	RATIO	PERCENT	CUM %
	NO	AV ABUN	AV ABUN	AV ABUN				
HYMSE	58	17.00	.00	.75	4.91	2.96	2.96	
AUDOU	52	17.25	.00	.74	3.14	2.90	5.86	
LAMIS	16	8.75	31.67	.71	1.61	2.77	8.63	
TRAIN	59	60.50	34.67	.56	.85	2.19	10.82	
POLBR	97	.00	6.33	.46	4.07	1.81	12.63	
AUDOI	51	58.75	34.33	.45	1.36	1.77	14.40	
BONAS	57	14.00	34.67	.44	1.51	1.74	16.14	
APORU	55	13.25	20.67	.44	1.59	1.73	17.87	
CUTAG	5	9.50	22.00	.44	1.24	1.73	19.59	
CALCO	63	15.75	12.00	.44	1.48	1.72	21.32	
AUDOA	50	10.00	.33	.42	1.05	1.66	22.97	
LOMCL	82	26.50	31.33	.41	1.60	1.62	24.59	

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1994 = 28.89

SPECIES	1995		1994		AV TERM	RATIO	PERCENT	CUM %
	NO	AV ABUN	AV ABUN	AV ABUN				
AUDOI	51	58.75	8.00	1.02	2.02	3.54	3.54	
ECTOC	9	37.75	3.00	.94	4.87	3.27	6.81	
HYMSE	58	17.00	.00	.87	5.01	3.00	9.80	
SPHCI	26	16.50	.00	.84	3.42	2.91	12.71	
BONAS	57	14.00	.00	.75	2.42	2.61	15.32	
BROBY	60	23.25	3.33	.66	3.94	2.28	17.60	
CALCO	63	15.75	3.67	.61	1.31	2.10	19.70	
APORU	55	13.25	5.33	.58	1.33	2.00	21.70	
LOMCL	82	26.50	9.67	.58	1.53	1.99	23.70	

## SOURCE DATA FILE : Område C - ÅR

NUMBER OF SPECIES (ROWS) IN DATA SET = 118

NUMBER OF COLUMNS IN DATA SET = 21

NO SPECIES REDUCTION

SPECIES NAME FILE : CM2.LST

## GROUP SIZE COLUMN NUMBERS

GROUP	SIZE	COLUMN NUMBERS
1990	4	1,7,13,19
1991	4	2,8,14,20
1992	3	3,9,15
1993	3	4,10,16
1994	3	5,11,17
1995	4	6,12,18,21

SQUARE ROOT TRANSFORMATION

BRAY-CURTIS SIMILARITY

Value for percentage cutoff = 100.0

**1990 AVERAGE SIMILARITY = 69.87**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	83	88.25	4.2	19.01	6.05	6.05
TRAIN	72	57.00	3.3	52.74	4.66	10.71
CRUPE	84	42.75	3.0	16.83	4.25	14.96
AUDOI	63	44.25	2.8	4.17	3.98	18.94
DELSA	86	46.00	2.8	6.94	3.97	22.91
PHYRU	103	41.75	2.7	16.67	3.88	26.78
LAMIH	25	55.75	2.7	2.23	3.87	30.65
POLYU	99	45.25	2.7	3.96	3.84	34.49
PHYLL	98	41.00	2.5	4.96	3.52	38.01
CHAME	46	34.75	2.4	4.03	3.39	41.40
PNEOP	94	47.00	2.3	1.98	3.31	44.72
RHOCO	116	34.75	2.3	3.06	3.27	47.99

**1991 AVERAGE SIMILARITY = 73.39**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	83	86.25	4.0	23.67	5.49	5.49
LAMIH	25	70.75	3.4	5.70	4.58	10.07
POLYU	99	55.25	3.2	22.68	4.38	14.45
PHYRU	103	49.75	3.0	21.84	4.06	18.51
TRAIN	72	47.75	2.8	26.58	3.87	22.38
CALCR	78	36.25	2.6	34.84	3.51	25.89
DELSA	86	40.25	2.5	4.82	3.37	29.26
PTIPL	114	38.50	2.5	12.18	3.37	32.63
CHAME	46	32.50	2.3	8.07	3.09	35.72
AUDOU	64	36.00	2.2	5.10	2.99	38.71
PALPA	101	26.75	2.2	34.04	2.99	41.69
COROF	82	42.50	2.2	2.61	2.97	44.66
SPHAC	34	28.00	2.1	9.30	2.89	47.55

**1992 AVERAGE SIMILARITY = 75.00**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	83	93.33	4.2	21.22	5.58	5.58
LAMIH	25	73.33	3.5	6.45	4.65	10.23
PHYRU	103	59.67	3.2	11.14	4.30	14.53
TRAIN	72	54.67	3.1	9.08	4.14	18.67
PTIPL	114	45.33	2.7	12.68	3.62	22.29
POLYU	99	49.67	2.7	4.87	3.57	25.86
DELSA	86	46.33	2.6	3.59	3.44	29.30
PALPA	101	33.33	2.5	17.79	3.31	32.60
CHAME	46	41.00	2.5	7.78	3.29	35.89
DILCA	87	31.67	2.3	13.83	3.10	39.00
PTEPA	113	34.33	2.2	16.37	2.92	41.91
CRUPE	84	35.33	2.2	4.08	2.91	44.83
BONAS	71	25.33	2.1	21.22	2.85	47.67

**1993 AVERAGE SIMILARITY = 73.53**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	83	84.00	3.4	10.09	4.63	4.63
LAMIH	25	70.33	2.9	6.02	3.98	8.61
POLYU	99	58.00	2.9	18.82	3.91	12.52
PHYRU	103	52.00	2.8	27.77	3.76	16.28
SPHAC	34	50.00	2.6	12.19	3.56	19.84
CALCR	78	47.33	2.6	119.27	3.55	23.39
TRAIN	72	48.00	2.5	42.78	3.41	26.80
PALPA	101	40.33	2.5	180.46	3.40	30.20
CHAME	46	43.00	2.5	20.57	3.35	33.56
DESVI	9	35.00	2.2	15.09	3.05	36.61
AUDOI	63	45.67	2.2	203.48	2.96	39.57
DELSA	86	40.67	2.1	6.04	2.90	42.47
ECTOC	12	31.33	2.1	66.33	2.88	45.35
MEMAL	96	35.67	2.0	4.20	2.78	48.13

**1994 AVERAGE SIMILARITY = 71.45**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	83	91.33	4.5	365.29	6.31	6.31
LAMIH	25	63.67	3.4	7.94	4.78	11.09
TRAIN	72	54.33	3.3	17.63	4.58	15.67
PHYRU	103	51.33	3.3	117.46	4.55	20.22
POLYU	99	46.33	3.1	23.27	4.33	24.56
SPHAC	34	40.67	2.7	13.94	3.82	28.37
DELSA	86	40.67	2.7	5.05	3.77	32.15
CRUPE	84	37.00	2.5	5.19	3.53	35.68
CHAME	46	31.33	2.4	8.24	3.37	39.05
AUDOU	64	40.67	2.4	6.39	3.29	42.35
PTIPL	114	28.00	2.1	3.65	2.97	45.31
PHYLL	98	25.00	2.1	8.68	2.95	48.27

**1995 AVERAGE SIMILARITY = 75.31**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	83	94.75	4.0	35.49	5.34	5.34
LAMIH	25	67.50	3.2	10.00	4.27	9.61
AUDOI	63	54.50	3.0	21.68	3.94	13.56
PHYRU	103	51.25	2.8	8.70	3.76	17.32
SPHAC	34	52.50	2.8	10.38	3.72	21.04
TRAIN	72	48.00	2.7	36.66	3.64	24.68
CALCR	78	38.00	2.4	8.21	3.15	27.83
PTIPL	114	37.25	2.3	11.19	3.05	30.88
DELSA	86	42.75	2.2	2.35	2.88	33.76
AUDOU	64	40.75	2.1	4.62	2.85	36.61
MEMAL	96	31.50	2.1	4.81	2.75	39.35
CHAME	46	28.25	2.0	16.95	2.69	42.04
COROF	82	32.00	1.9	6.02	2.54	44.59
HALOV	52	28.75	1.8	2.89	2.42	47.01
PALPA	101	21.25	1.8	7.14	2.33	49.34

**AVERAGE DISSIMILARITY BETWEEN 1991 og 1990 = 29.67**

SPECIES	1991		1990		AV TERM	RATIO	PERCENT	CUM %
	NO	AV ABUN	AV ABUN	AV TERM				
AUDOU	64	36.00	.25	1.28	4.26	4.31	4.31	
HALOV	52	28.00	.00	1.18	5.31	3.97	8.28	
DESVI	9	19.75	1.75	.74	1.55	2.48	10.76	
PNEOP	94	45.50	47.00	.71	1.41	2.40	13.16	
LAMIS	26	10.50	17.50	.71	1.11	2.39	15.55	
BRYPL	43	14.00	10.50	.68	1.58	2.29	17.83	
SPHCI	37	9.50	10.50	.65	1.41	2.18	20.01	
ECTOC	12	21.75	13.25	.63	1.40	2.14	22.15	
COROF	82	42.50	23.50	.63	1.51	2.11	24.26	

**AVERAGE DISSIMILARITY BETWEEN 1992 og 1990 = 29.17**

SPECIES	1992		1990		AV TERM	RATIO	PERCENT	CUM %
	NO	AV ABUN	AV ABUN	AV TERM				
HALOV	52	13.33	.00	.81	7.83	2.78	2.78	
PLOCA	105	.00	15.75	.74	1.45	2.55	5.34	
LAMIS	26	14.67	17.50	.73	1.16	2.52	7.85	
APORU	69	20.67	9.75	.67	1.43	2.31	10.16	
RHOPU	115	9.33	.00	.67	5.58	2.30	12.47	
AUDOU	64	14.00	.25	.66	1.30	2.25	14.71	
BRUNT	3	27.33	23.75	.62	1.39	2.11	16.82	
SPHPL	39	20.00	14.25	.61	1.75	2.08	18.90	
SPHAC	34	33.67	34.50	.61	1.03	2.08	20.98	
AUDOI	63	16.00	44.25	.59	2.11	2.01	22.98	
ODODE	97	13.67	19.00	.58	1.35	1.99	24.97	



## AVERAGE DISSIMILARITY BETWEEN 1992 og 1991 = 27.07

SPECIES	1992		1991	AV TERM	RATIO	PERCENT	CUM %
	NO	AV ABUN	AV ABUN				
DILCA	87	31.67	4.75	.80	3.67	2.94	2.94
AUDOU	64	14.00	36.00	.69	1.28	2.53	5.47
RHOPU	115	9.33	.00	.65	5.54	2.41	7.88
RHOCO	116	26.00	25.50	.62	1.40	2.30	10.18
LAMIS	26	14.67	10.50	.61	1.00	2.25	12.43
PNEOP	94	37.00	45.50	.61	1.45	2.24	14.67
BRYPL	43	8.00	14.00	.59	1.22	2.20	16.87
APORU	69	20.67	10.25	.57	1.30	2.09	18.96
CUTAG	7	7.00	7.75	.56	1.83	2.08	21.04
PTEPA	113	34.33	16.75	.56	1.31	2.06	23.10

## AVERAGE DISSIMILARITY BETWEEN 1993 og 1990 = 31.21

SPECIES	1993		1990	AV TERM	RATIO	PERCENT	CUM %
	NO	AV ABUN	AV ABUN				
PNEOP	94	4.67	47.00	1.16	1.98	3.71	3.71
DESVI	9	35.00	1.75	1.08	4.64	3.46	7.17
HALOV	52	16.33	.00	.86	8.16	2.76	9.93
ALARI	1	33.67	10.00	.80	1.69	2.56	12.49
LAMIS	26	14.00	17.50	.70	1.06	2.24	14.73
PLOCA	105	.33	15.75	.67	1.52	2.15	16.88
SPHPL	39	29.00	14.25	.66	1.64	2.13	19.00
BRUNT	3	17.67	23.75	.66	1.62	2.10	21.10
LOMOR	93	14.67	3.00	.64	1.84	2.04	23.14

## AVERAGE DISSIMILARITY BETWEEN 1993 og 1991 = 28.32

SPECIES	1993		1991	AV TERM	RATIO	PERCENT	CUM %
	NO	AV ABUN	AV ABUN				
PNEOP	94	4.67	45.50	1.08	1.69	3.80	3.80
ALARI	1	33.67	14.75	.74	1.47	2.60	6.40
AUDOU	64	9.00	36.00	.71	1.79	2.51	8.90
BRUNT	3	17.67	34.25	.64	1.80	2.24	11.15
RHOCO	116	40.00	25.50	.63	1.17	2.22	13.37
LOMOR	93	14.67	2.75	.63	1.94	2.21	15.58
DILCA	87	25.67	4.75	.62	2.05	2.19	17.77
LAMIS	26	14.00	10.50	.58	.93	2.06	19.83
COROF	82	23.00	42.50	.56	1.46	1.99	21.82
LOMCL	92	11.00	4.50	.56	2.48	1.98	23.81

## AVERAGE DISSIMILARITY BETWEEN 1993 og 1992 = 27.11

SPECIES	1993		1992	AV TERM	RATIO	PERCENT	CUM %
	NO	AV ABUN	AV ABUN				
PNEOP	94	4.67	37.00	.98	1.95	3.61	3.61
ALARI	1	33.67	14.33	.74	1.39	2.74	6.34
ECTOC	12	31.33	7.33	.62	3.51	2.28	8.63
LAMIS	26	14.00	14.67	.62	.97	2.28	10.91
RHOPU	115	.00	9.33	.62	5.43	2.27	13.18
ODODE	97	23.33	13.67	.62	1.41	2.27	15.45
DESVI	9	35.00	11.67	.57	1.90	2.10	17.56
CHOTO	5	9.33	.00	.56	1.78	2.07	19.62
BRUNT	3	17.67	27.33	.54	1.32	2.00	21.62
AUDOI	63	45.67	16.00	.54	1.57	1.99	23.61

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1990 = 30.89

SPECIES	NO	1994		1990		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
AUDOU	64	40.67	.25	1.40	3.54	4.54	4.54		
PNEOP	94	9.33	47.00	1.11	1.75	3.61	8.15		
BRUNT	3	32.00	23.75	.81	1.31	2.62	10.77		
PLOCA	105	.33	15.75	.74	1.52	2.40	13.17		
LAMIS	26	7.00	17.50	.70	1.06	2.25	15.42		
PHYCR	104	21.33	17.00	.65	1.70	2.09	17.51		
BONAS	71	4.33	19.00	.59	1.83	1.89	19.41		
COROF	82	35.33	23.50	.58	1.38	1.88	21.29		
PTEPA	113	6.33	20.00	.58	1.38	1.88	23.17		

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1991 = 28.28

SPECIES	NO	1994		1991		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
PNEOP	94	9.33	45.50	1.03	1.43	3.63	3.63		
DESVI	9	.33	19.75	.82	1.63	2.91	6.54		
BRUNT	3	32.00	34.25	.70	1.39	2.49	9.02		
RHOCO	116	26.00	25.50	.65	1.32	2.29	11.31		
BRYPL	43	.67	14.00	.65	1.74	2.29	13.60		
HALOV	52	7.00	28.00	.63	1.84	2.23	15.83		
DILCA	87	21.67	4.75	.60	2.17	2.12	17.95		
PTEPA	113	6.33	16.75	.59	1.60	2.10	20.05		
PHYCR	104	21.33	21.50	.59	1.55	2.08	22.12		
LAMIS	26	7.00	10.50	.56	1.00	1.99	24.11		

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1992 = 27.37

SPECIES	NO	1994		1992		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
PNEOP	94	9.33	37.00	.91	1.63	3.32	3.32		
PTEPA	113	6.33	34.33	.85	2.07	3.11	6.43		
AUDOU	64	40.67	14.00	.78	1.29	2.86	9.29		
APORU	69	5.00	20.67	.77	1.65	2.80	12.10		
BONAS	71	4.33	25.33	.72	3.19	2.64	14.73		
BRUNT	3	32.00	27.33	.69	1.30	2.54	17.27		
RHOPU	115	.00	9.33	.68	5.53	2.48	19.75		
DESVI	9	.33	11.67	.64	1.91	2.36	22.10		
LAMIS	26	7.00	14.67	.63	1.09	2.29	24.39		

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1993 = 29.43

SPECIES	NO	1994		1993		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
DESVI	9	.33	35.00	1.21	9.11	4.10	4.10		
ALARI	1	10.33	33.67	.81	1.50	2.77	6.86		
ECTO	12	3.67	31.33	.81	6.85	2.74	9.60		
AUDOU	64	40.67	9.00	.79	1.62	2.70	12.30		
BRUNT	3	32.00	17.67	.75	1.42	2.53	14.83		
LOMOR	93	.67	14.67	.72	4.28	2.46	17.29		
CHOTO	5	.00	9.33	.58	1.79	1.98	19.27		
LAMIS	26	7.00	14.00	.58	.93	1.96	21.23		
RHOCO	116	26.00	40.00	.56	1.40	1.89	23.12		
PHYCR	104	21.33	18.00	.55	1.20	1.86	24.99		

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1990 = 30.73

SPECIES	NO	1995	1990	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
AUDOU	64	40.75	.25	1.32	3.55	4.31	4.31
HALOV	52	28.75	.00	1.15	3.82	3.74	8.05
PNEOP	94	10.00	47.00	.82	1.66	2.68	10.73
GIFHI	20	17.75	.00	.82	1.90	2.67	13.40
DESVI	9	20.75	1.75	.80	2.58	2.59	15.99
LAMIS	26	5.50	17.50	.64	1.01	2.09	18.08
PORCO	112	14.50	2.25	.62	2.09	2.01	20.09
PLOCA	105	6.75	15.75	.59	1.35	1.93	22.03
BRYPL	43	9.50	10.50	.59	2.10	1.93	23.96

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1991 = 26.07

SPECIES	NO	1995	1991	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
PNEOP	94	10.00	45.50	.82	1.65	3.14	3.14
GIFHI	20	17.75	3.00	.60	1.47	2.30	5.44
RHOCO	116	23.25	25.50	.58	1.37	2.21	7.65
PORCO	112	14.50	3.00	.56	1.76	2.13	9.78
CUTAG	7	10.50	7.75	.55	1.06	2.11	11.89
DILCA	87	21.00	4.75	.55	2.00	2.10	13.99
SPHPL	39	8.75	16.25	.51	1.47	1.95	15.94
APORU	69	2.50	10.25	.51	1.30	1.94	17.88
LAMIS	26	5.50	10.50	.50	.93	1.92	19.81
BROBY	73	27.50	17.50	.48	1.71	1.83	21.64
CRUPE	84	29.50	31.75	.48	.97	1.83	23.47

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1992 = 28.50

SPECIES	NO	1995	1992	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
GIFHI	20	17.75	.00	.79	1.88	2.78	2.78
APORU	69	2.50	20.67	.77	1.82	2.70	5.48
AUDOU	64	40.75	14.00	.74	1.32	2.60	8.08
AUDOI	63	54.50	16.00	.72	5.72	2.54	10.62
PORCO	112	14.50	.67	.71	3.26	2.48	13.10
PNEOP	94	10.00	37.00	.64	1.71	2.26	15.36
RHOPU	115	.00	9.33	.64	5.51	2.23	17.58
LAMIS	26	5.50	14.67	.57	1.03	2.01	19.59
BRYPL	43	9.50	8.00	.56	2.24	1.96	21.55
POLYU	99	43.25	49.67	.52	.85	1.84	23.39

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1993 = 27.28

SPECIES	NO	1995	1993	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
AUDOU	64	40.75	9.00	.76	1.73	2.79	2.79
PORCO	112	14.50	.33	.70	4.30	2.55	5.35
ALARI	1	18.75	33.67	.69	1.29	2.52	7.87
GIFHI	20	17.75	4.67	.63	1.68	2.32	10.19
SPHPL	39	8.75	29.00	.59	1.61	2.17	12.36
CRUPE	84	29.50	15.00	.58	2.00	2.12	14.48
APORU	69	2.50	11.00	.53	1.90	1.92	16.41
LOMOR	93	4.00	14.67	.52	1.64	1.92	18.33
LAMIS	26	5.50	14.00	.52	.87	1.90	20.22
BRUNT	3	23.75	17.67	.52	1.88	1.89	22.11
RHOCO	116	23.25	40.00	.49	1.34	1.81	23.92

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1994 = 28.19

SPECIES	1995		1994		AV TERM	RATIO	PERCENT	CUM %
	NO	AV ABUN	AV ABUN	AV ABUN				
DESVI	9	20.75	.33	.92	3.85	3.27	3.27	
PORCO	112	14.50	.00	.84	6.02	2.98	6.25	
GIFHI	20	17.75	.67	.72	1.55	2.56	8.80	
BRUNT	3	23.75	32.00	.68	1.73	2.40	11.21	
HALOV	52	28.75	7.00	.65	1.99	2.31	13.52	
AUDOI	63	54.50	24.00	.59	1.94	2.09	15.60	
PHYCR	104	14.00	21.33	.58	1.76	2.05	17.66	
PTEPA	113	18.75	6.33	.54	1.43	1.93	19.59	
ALARI	1	18.75	10.33	.54	1.23	1.93	21.52	
CUTAG	7	10.50	2.00	.52	1.54	1.83	23.34	

## SOURCE DATA FILE : Område D - ÅR

NUMBER OF SPECIES (ROWS) IN DATA SET = 121

NUMBER OF COLUMNS IN DATA SET = 21

NO SPECIES REDUCTION

SPECIES NAME FILE : DM2.LST

## GROUP SIZE COLUMN NUMBERS

YEAR	GROUP SIZE	COLUMN NUMBERS
1990	4	1,4,10,16
1991	4	2,5,11,17
1992	3	6,12,18
1993	3	7,13,19
1994	3	8,14,20
1995	4	3,9,15,21

## SQUARE ROOT TRANSFORMATION

## BRAY-CURTIS SIMILARITY

Value for percentage cutoff = 50.0 / 25.0

## 1990 AVERAGE SIMILARITY = 70.95

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	86	70.75	3.8	12.22	5.36
TRAIN	77	63.00	3.6	22.88	5.14
DELSA	89	51.75	3.3	44.06	4.61
LAMIH	24	55.50	3.1	4.55	4.39
CRUPE	87	50.75	3.1	9.94	4.35
LAMIS	25	40.50	3.0	66.40	4.16
CUTAG	5	48.00	2.8	4.39	3.93
SPHAC	36	54.25	2.5	1.94	3.59
DESAC	6	37.25	2.4	8.11	3.43
BRUNT	2	34.75	2.4	4.79	3.33
AUDOI	67	29.50	2.3	8.75	3.19
PHYRU	107	35.25	2.3	3.40	3.18

**1991 AVERAGE SIMILARITY = 80.25**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	86	74.00	3.5	37.68	4.32	4.32
TRAIN	77	69.50	3.3	40.84	4.11	8.43
LAMIH	24	61.75	2.9	7.86	3.62	12.06
POLYU	102	53.00	2.9	25.53	3.59	15.64
CALCR	81	46.00	2.7	25.04	3.36	19.01
DELSA	89	47.25	2.7	18.02	3.35	22.35
PHYRU	107	44.75	2.7	32.72	3.30	25.66
CUTAG	5	45.00	2.6	11.71	3.19	28.84
LOMCL	94	36.50	2.4	23.05	2.96	31.80
PALPA	104	34.75	2.3	44.41	2.87	34.67
BONAS	76	35.75	2.2	12.78	2.77	37.44
DESVI	7	38.25	2.2	5.39	2.73	40.17
CRUPE	87	36.75	2.0	8.45	2.53	42.70
COROF	85	33.00	2.0	6.87	2.50	45.20
LAMIS	25	33.00	1.9	3.39	2.40	47.60

**1992 AVERAGE SIMILARITY = 72.71**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	86	84.67	4.1	57.40	5.61	5.61
TRAIN	77	66.67	3.5	25.86	4.84	10.45
CRUPE	87	57.67	3.2	21.53	4.47	14.91
CUTAG	5	57.33	3.2	14.58	4.43	19.35
DELSA	89	43.33	2.9	18.15	3.94	23.29
POLYU	102	43.67	2.8	45.76	3.88	27.16
LAMIH	24	40.67	2.6	93.88	3.61	30.77
AUDOI	67	35.33	2.6	22.39	3.57	34.34
DESVI	7	33.33	2.5	35.86	3.44	37.78
LAMIS	25	39.67	2.5	5.94	3.44	41.22
LOMCL	94	32.67	2.3	46.03	3.11	44.33
SPHAC	36	31.00	2.1	3.62	2.86	47.19
MEMAL	98	25.00	2.0	5.87	2.76	49.95

**1993 AVERAGE SIMILARITY = 74.32**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	86	81.00	3.4	37.33	4.61	4.61
TRAIN	77	72.67	3.2	16.37	4.36	8.97
AUDOI	67	82.00	3.2	10.94	4.31	13.28
SPHAC	36	66.67	3.1	56.27	4.24	17.51
CUTAG	5	44.00	2.5	26.13	3.37	20.89
LAMIH	24	51.00	2.5	9.92	3.33	24.22
POLYU	102	48.33	2.4	6.09	3.25	27.46
CRUPE	87	46.33	2.4	7.29	3.24	30.70
LAMIS	25	40.33	2.3	18.53	3.11	33.82
BRUNT	2	37.00	2.2	19.18	3.02	36.84
DELSA	89	36.67	2.2	13.33	2.97	39.82
DESVI	7	39.00	2.2	6.21	2.97	42.78
LOMCL	94	35.00	2.1	4.84	2.76	45.55
PORCO	114	27.33	2.0	17.64	2.68	48.23

**1994 AVERAGE SIMILARITY = 76.23**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
TRAIN	77	79.33	4.0	36.11	5.27	5.27
CORAX	86	70.33	3.7	17.29	4.86	10.13
LAMIH	24	65.00	3.7	85.74	4.85	14.98
POLYU	102	54.67	3.3	28.28	4.37	19.36
CRUPE	87	43.67	3.0	51.56	3.94	23.29
CUTAG	5	36.67	2.7	32.47	3.54	26.84
DELSA	89	38.67	2.7	79.49	3.53	30.37
LOMCL	94	37.67	2.6	79.46	3.42	33.79
DESVI	7	32.67	2.5	24.27	3.29	37.08
SPHAC	36	35.00	2.5	8.56	3.26	40.34
PALPA	104	30.33	2.4	10.54	3.18	43.52
LAMIS	25	33.00	2.4	8.53	3.13	46.64
CHAME	49	32.33	2.3	17.16	3.08	49.72

**1995 AVERAGE SIMILARITY = 77.03**

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
CORAX	86	82.00	3.6	25.06	4.69	4.69
TRAIN	77	76.75	3.5	31.03	4.53	9.22
LAMIH	24	75.25	3.2	12.70	4.22	13.43
LAMIS	25	50.50	2.8	47.01	3.61	17.04
PHYRU	107	50.75	2.6	6.73	3.43	20.47
AUDOI	67	46.00	2.6	21.69	3.36	23.84
CRUPE	87	40.00	2.3	9.61	3.04	26.88
SPHAC	36	38.75	2.3	5.15	2.95	29.83
DELSA	89	38.00	2.3	6.84	2.94	32.77
DESVI	7	39.50	2.2	10.89	2.91	35.67
PALPA	104	29.25	2.1	13.43	2.73	38.40
POLYU	102	29.25	2.1	21.82	2.73	41.13
CUTAG	5	35.75	2.0	3.26	2.62	43.75
CALCR	81	32.25	2.0	10.54	2.59	46.34
LOMCL	94	32.75	1.9	4.73	2.51	48.85

**AVERAGE DISSIMILARITY BETWEEN 1991 og 1990 = 28.09**

SPECIES	NO	1991	1990	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
BONAS	76	35.75	.25	1.25	6.03	4.44	4.44
DESVI	7	38.25	6.50	.89	2.16	3.16	7.60
PHYCR	108	20.00	.75	.87	3.89	3.11	10.71
AUDOU	68	17.50	.00	.83	2.23	2.96	13.67
PTEPA	115	18.50	12.00	.78	1.55	2.79	16.46
ECTOC	9	23.50	7.50	.73	1.77	2.59	19.05
CALCR	81	46.00	18.25	.69	1.33	2.46	21.51
RHOCO	118	18.75	24.50	.61	1.69	2.16	23.68

**AVERAGE DISSIMILARITY BETWEEN 1992 og 1990 = 30.61**

SPECIES	NO	1992	1990	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
AUDOU	68	25.00	.00	1.10	3.16	3.61	3.61
DESVI	7	33.33	6.50	.86	2.33	2.80	6.40
RHOCO	118	6.33	24.50	.79	1.29	2.60	9.00
PTEPA	115	14.00	12.00	.72	1.16	2.35	11.36
BONAS	76	16.00	.25	.72	1.33	2.35	13.71
SACPO	38	25.00	20.75	.67	1.16	2.20	15.90
DERMA	51	15.33	17.00	.67	1.87	2.17	18.08
PNEOP	96	17.67	6.50	.66	1.52	2.14	20.22
SPHAC	36	31.00	54.25	.65	2.26	2.12	22.34
PORCO	114	3.33	18.50	.64	1.64	2.08	24.43

**AVERAGE DISSIMILARITY BETWEEN 1992 og 1991 = 25.56**

SPECIES	NO	1992	1991	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
CALCR	81	10.00	46.00	.81	3.35	3.18	3.18
PORCO	114	3.33	26.25	.76	1.96	2.97	6.15
ECTOC	9	3.67	23.50	.69	1.81	2.69	8.84
RHOCO	118	6.33	18.75	.68	1.69	2.67	11.51
SACPO	38	25.00	14.75	.64	1.35	2.50	14.02
PTEPA	115	14.00	18.50	.62	1.43	2.41	16.42
BONAS	76	16.00	35.75	.61	1.18	2.40	18.83
DERMA	51	15.33	17.00	.56	3.05	2.17	21.00
PHYRU	107	19.33	44.75	.52	2.08	2.03	23.02
CALLA	82	16.67	6.25	.49	1.48	1.93	24.96

## AVERAGE DISSIMILARITY BETWEEN 1993 og 1990 = 29.95

SPECIES	NO	1993		1990		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
AUDOU	68	58.67	.00	1.54	2.15	5.13	5.13		
DESVI	7	39.00	6.50	.89	2.32	2.97	8.10		
BONAS	76	28.33	.25	.87	1.33	2.91	11.01		
ECTOC	9	29.67	7.50	.80	1.78	2.69	13.70		
AUDOI	67	82.00	29.50	.78	2.49	2.62	16.32		
LITPU	28	16.33	.00	.71	1.31	2.37	18.68		
PTEPA	115	16.67	12.00	.68	1.06	2.26	20.94		
PHYCR	108	14.67	.75	.63	1.44	2.11	23.05		
GIFHI	17	19.33	8.25	.58	1.48	1.93	24.99		

## AVERAGE DISSIMILARITY BETWEEN 1993 og 1991 = 25.01

SPECIES	NO	1993		1991		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
AUDOU	68	58.67	17.50	.81	1.46	3.24	3.24		
AUDOI	67	82.00	35.25	.77	1.80	3.08	6.32		
PTEPA	115	16.67	18.50	.63	1.57	2.53	8.85		
LITPU	28	16.33	2.50	.60	1.31	2.41	11.26		
BONAS	76	28.33	35.75	.60	1.21	2.40	13.66		
BRYPL	47	10.00	5.50	.55	2.95	2.20	15.86		
SPHAC	36	66.67	32.25	.52	2.10	2.08	17.94		
LOMOR	95	14.67	6.75	.52	1.39	2.07	20.01		
DILCA	90	.00	7.50	.47	1.64	1.89	21.89		
DERMA	51	18.67	17.00	.46	1.50	1.83	23.72		

## AVERAGE DISSIMILARITY BETWEEN 1993 og 1992 = 28.14

SPECIES	NO	1993		1992		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
ECTOC	9	29.67	3.67	.82	2.68	2.93	2.93		
PORCO	114	27.33	3.33	.80	3.00	2.85	5.78		
AUDOU	68	58.67	25.00	.73	1.50	2.59	8.37		
BONAS	76	28.33	16.00	.70	1.33	2.50	10.88		
LITPU	28	16.33	.00	.69	1.29	2.46	13.33		
SACPO	38	9.67	25.00	.67	1.64	2.39	15.73		
BRYPL	47	10.00	.00	.66	5.32	2.34	18.07		
AUDOI	67	82.00	35.33	.64	2.55	2.29	20.36		
DERMA	51	18.67	15.33	.63	1.48	2.24	22.60		
RHOCO	118	16.33	6.33	.62	1.82	2.22	24.82		

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1990 = 31.18

SPECIES	NO	1994		1990		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
AUDOU	68	35.33	.00	1.35	3.88	4.32	4.32		
DICDI	8	.67	23.75	.94	2.81	3.00	7.32		
DESVI	7	32.67	6.50	.85	2.28	2.74	10.06		
PHYCR	108	18.33	.75	.81	1.87	2.61	12.67		
RHOCO	118	4.00	24.50	.79	1.73	2.53	15.20		
COROF	85	16.33	33.00	.76	1.40	2.44	17.64		
SACPO	38	4.33	20.75	.73	1.54	2.34	19.99		
HALSI	20	5.67	17.25	.63	1.48	2.01	22.00		
PTEPA	115	5.67	12.00	.61	1.14	1.96	23.96		

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1991 = 24.98

SPECIES	1994		1991	AV TERM	RATIO	PERCENT	CUM %
	NO	AV ABUN	AV ABUN				
DICDI	8	.67	22.00	.86	5.32	3.42	3.42
BONAS	76	9.67	35.75	.74	1.66	2.96	6.38
COROF	85	16.33	33.00	.68	1.45	2.72	9.10
PTEPA	115	5.67	18.50	.61	1.47	2.45	11.55
SACPO	38	4.33	14.75	.55	1.51	2.21	13.76
AUDOU	68	35.33	17.50	.54	1.49	2.16	15.92
RHOCO	118	4.00	18.75	.52	1.10	2.07	17.99
BRUNT	2	38.00	21.75	.51	1.15	2.03	20.02
AUDOI	67	12.33	35.25	.50	1.02	2.01	22.03
ECTOC	9	10.33	23.50	.49	1.06	1.98	24.01

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1992 = 28.17

SPECIES	1994		1992	AV TERM	RATIO	PERCENT	CUM %
	NO	AV ABUN	AV ABUN				
DICDI	8	.67	31.00	1.03	1.96	3.64	3.64
SACPO	38	4.33	25.00	.81	1.62	2.88	6.52
COROF	85	16.33	25.67	.69	1.38	2.45	8.98
PORCO	114	17.33	3.33	.61	1.71	2.16	11.14
AUDOI	67	12.33	35.33	.59	2.31	2.09	13.23
PTEPA	115	5.67	14.00	.58	1.30	2.06	15.30
BONAS	76	9.67	16.00	.55	1.17	1.94	17.24
GIFHI	17	10.33	11.33	.54	1.37	1.91	19.15
DERMA	51	10.67	15.33	.53	2.27	1.87	21.02
BRYPL	47	5.00	.00	.51	12.79	1.80	22.82
BRUNT	2	38.00	16.67	.48	1.09	1.72	24.54

## AVERAGE DISSIMILARITY BETWEEN 1994 og 1993 = 27.26

SPECIES	1994		1993	AV TERM	RATIO	PERCENT	CUM %
	NO	AV ABUN	AV ABUN				
AUDOI	67	12.33	82.00	1.20	3.37	4.41	4.41
DICDI	8	.67	37.33	1.10	3.03	4.04	8.45
BONAS	76	9.67	28.33	.71	1.45	2.62	11.06
LITPU	28	.33	16.33	.67	1.38	2.47	13.54
COROF	85	16.33	29.00	.67	1.38	2.46	16.00
AUDOU	68	35.33	58.67	.65	1.50	2.38	18.37
ECTOC	9	10.33	29.67	.60	1.31	2.19	20.57
PTEPA	115	5.67	16.67	.58	1.26	2.11	22.68
GIFHI	17	10.33	19.33	.52	1.44	1.89	24.57

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1990 = 30.45

SPECIES	1995		1990	AV TERM	RATIO	PERCENT	CUM %
	NO	AV ABUN	AV ABUN				
AUDOU	68	28.75	.00	1.16	5.55	3.81	3.81
DESVI	7	39.50	6.50	.91	2.22	2.99	6.79
ECTOC	9	28.50	7.50	.80	1.71	2.63	9.42
PTEPA	115	14.25	12.00	.71	1.42	2.34	11.76
PHYCR	108	15.00	.75	.71	2.34	2.33	14.09
GIFHI	17	24.75	8.25	.68	1.48	2.24	16.33
DESAC	6	17.50	37.25	.61	1.36	2.02	18.34
RHOCO	118	8.25	24.50	.61	2.19	2.02	20.36
COROF	85	21.00	33.00	.58	1.31	1.91	22.27
DICDI	8	21.00	23.75	.58	1.44	1.90	24.17



## AVERAGE DISSIMILARITY BETWEEN 1995 og 1991 = 23.83

SPECIES	NO	1995		1991		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
BONAS	76	12.00		35.75		.66	1.74	2.77	2.77
BRYPL	47	10.75		5.50		.56	2.13	2.34	5.11
GIFHI	17	24.75		8.00		.54	1.54	2.25	7.37
PTEPA	115	14.25		18.50		.53	1.35	2.24	9.61
DICDI	8	21.00		22.00		.52	1.68	2.18	11.78
AUDOI	67	46.00		35.25		.51	3.00	2.15	13.94
CALLA	82	14.50		6.25		.46	1.47	1.94	15.88
PNEOP	96	.00		7.00		.46	1.51	1.93	17.80
BRUNT	2	26.25		21.75		.45	1.53	1.90	19.70
COROF	85	21.00		33.00		.44	1.02	1.86	21.57
DESAC	6	17.50		23.00		.44	1.60	1.85	23.42

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1992 = 28.88

SPECIES	NO	1995		1992		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
PORCO	114	28.75		3.33		.81	2.19	2.81	2.81
PNEOP	96	.00		17.67		.81	1.98	2.80	5.60
ECTOC	9	28.50		3.67		.80	2.15	2.77	8.38
BRYPL	47	10.75		.00		.66	2.92	2.30	10.68
SACPO	38	12.00		25.00		.66	1.69	2.28	12.95
DERMA	51	28.50		15.33		.64	1.60	2.23	15.18
DICDI	8	21.00		31.00		.64	1.25	2.21	17.39
PHYRU	107	50.75		19.33		.60	1.90	2.08	19.47
COROF	85	21.00		25.67		.58	1.53	2.00	21.47
PTEPA	115	14.25		14.00		.57	1.28	1.98	23.45

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1993 = 25.67

SPECIES	NO	1995		1993		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
BONAS	76	12.00		28.33		.69	1.74	2.69	2.69
AUDOU	68	28.75		58.67		.65	1.75	2.53	5.21
DICDI	8	21.00		37.33		.63	1.36	2.46	7.67
PTEPA	115	14.25		16.67		.59	1.37	2.30	9.97
LITPU	28	2.75		16.33		.58	1.48	2.26	12.23
PNEOP	96	.00		12.00		.55	1.28	2.14	14.37
COROF	85	21.00		29.00		.53	1.35	2.06	16.43
DERMA	51	28.50		18.67		.51	1.15	1.99	18.42
SPHCI	40	1.75		12.00		.51	1.59	1.97	20.39
PHYRU	107	50.75		26.33		.49	1.47	1.92	22.31
DESAC	6	17.50		29.67		.47	1.35	1.82	24.13

## AVERAGE DISSIMILARITY BETWEEN 1995 og 1994 = 25.30

SPECIES	NO	1995		1994		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
AUDOI	67	46.00		12.33		.74	2.77	2.91	2.91
DICDI	8	21.00		.67		.73	1.42	2.87	5.78
COROF	85	21.00		16.33		.64	1.40	2.54	8.32
PNEOP	96	.00		9.00		.63	3.50	2.50	10.82
GIFHI	17	24.75		10.33		.59	1.34	2.35	13.17
ECTOC	9	28.50		10.33		.58	1.17	2.28	15.45
PTEPA	115	14.25		5.67		.53	1.35	2.08	17.53
PHYRU	107	50.75		22.33		.52	2.03	2.05	19.58
RHOLY	119	7.00		.00		.50	1.64	1.97	21.55
BONAS	76	12.00		9.67		.50	1.79	1.96	23.51

**ONE-WAY ANOSIM = Simulert ANOVA****Date: 17/10/1996**

Similarity matrix: D:\ Alle hovedområder - spredt forekomst - Områder

Group	Size	Samples
<b>A</b>	16	1-16
<b>B</b>	21	17-37
<b>C</b>	21	38-58
<b>D</b>	21	59-79

Number of samples used: 79 from a possible 79

**GLOBAL TEST**

Sample statistic (Global R): 0.787

Number of permutations: 5000 (RANDOM SAMPLE FROM APPROX 5.344D+43)

Number of permuted statistics greater than or equal to global R: 0

Significance level of sample statistic: **0.0%****PAIRWISE TESTS**

Groups Used	Stat Value	Possible Permutations	Permutations Used	Significant Statistics	Significance Level
<b>A - B</b>	0.549	1.288D+10	5000	0	<b>0.0%</b>
<b>A - C</b>	0.842	1.288D+10	5000	0	<b>0.0%</b>
<b>A - D</b>	0.947	1.288D+10	5000	0	<b>0.0%</b>
<b>B - C</b>	0.755	2.691D+11	5000	0	<b>0.0%</b>
<b>B - D</b>	0.970	2.691D+11	5000	0	<b>0.0%</b>
<b>C - D</b>	0.784	2.691D+11	5000	0	<b>0.0%</b>

**Date: 1/11/1996**

Similarity matrix: Hele datamateriale alle områder - ÅR

Group	Size	Samples
1990	15	1, 4, 10, 17, 23, 29, 35, 38, 44, 50, 56, 59, 62, 68, 74
1991	14	5, 11, 18, 24, 30, 36, 39, 45, 51, 57, 60, 63, 69, 75
1992	11	6, 12, 19, 25, 31, 40, 46, 52, 64, 70, 76
1993	11	7, 13, 20, 26, 32, 41, 47, 53, 65, 71, 77
1994	12	2, 8, 14, 21, 27, 33, 42, 48, 54, 66, 72, 78
1995	16	3, 9, 15, 16, 22, 28, 34, 37, 43, 49, 55, 58, 61, 67, 73, 79

Number of samples used: 79 from a possible 79

**GLOBAL TEST**

Sample statistic (Global R): 0.088

Number of permutations: 10000 (RANDOM SAMPLE FROM APPROX 2.457D+56)

Number of permuted statistics greater than or equal to global R: 24

Significance level of sample statistic: **0.2%**

**PAIRWISE TESTS**

Groups Used	Stat Value	Possible Permutations	Permutations Used	Significant Statistics	Significance Level
1990-1991	0.059	7.756D+07	10000	993	9.9%
1990-1992	-0.003	7.726D+06	10000	4352	43.5%
1990-1993	0.024	7.726D+06	10000	2812	28.1%
1990-1994	0.100	1.738D+07	10000	543	5.4%
1990- <b>1995</b>	0.180	3.005D+08	10000	35	<b>0.4%</b>
1991-1992	0.027	4.457D+06	10000	2583	25.8%
1991-1993	0.001	4.457D+06	10000	3989	39.9%
1991-1994	0.122	9.658D+06	10000	399	<b>4.0%</b>
1991- <b>1995</b>	0.101	1.454D+08	10000	439	<b>4.4%</b>
1992-1993	0.025	3.527D+05	10000	2819	28.2%
1992-1994	0.121	1.352D+06	10000	495	5.0%
1992- <b>1995</b>	0.146	1.304D+07	10000	274	<b>2.7%</b>
1993-1994	0.153	1.352D+06	10000	297	<b>3.0%</b>
1993- <b>1995</b>	0.079	1.304D+07	10000	1029	10.3%
1994- <b>1995</b>	0.132	3.042D+07	10000	307	<b>3.1%</b>

**Date: 17/10/1996****Similarity matrix: Område A**

Group	Size	Samples
1990	3	1, 4, 10
1991	2	5, 11
1992	2	6, 12
1993	2	7, 13
1994	3	2, 8, 14
<b>1995</b>	4	3, 9, 15, 16

Number of samples used: 16 from a possible 16

**GLOBAL TEST**

Sample statistic (Global R): 0.383

Number of permutations: 5000 (RANDOM SAMPLE FROM APPROX 2.523D+08)

Number of permuted statistics greater than or equal to global R: 26

Significance level of sample statistic: **0.5%****PAIRWISE TESTS**

Groups Used	Stat Value	Possible Permutations	Permutations Used	Significant Statistics	Significance Level
1990-1991	0.167	10	10	3	30.0%
1990-1992	0.167	10	10	3	30.0%
1990-1993	0.417	10	10	2	20.0%
1990-1994	0.630	10	10	1	10.0%
1990- <b>1995</b>	0.593	35	35	1	<b>2.9%</b>
1991-1992	0.750	3	3	1	33.3%
1991-1993	0.750	3	3	1	33.3%
1991-1994	0.833	10	10	1	10.0%
1991- <b>1995</b>	0.643	15	15	1	<b>6.7%</b>
1992-1993	0.250	3	3	1	33.3%
1992-1994	0.833	10	10	1	10.0%
1992- <b>1995</b>	0.286	15	15	4	26.7%
1993-1994	0.500	10	10	2	20.0%
1993- <b>1995</b>	0.143	15	15	7	46.7%
1994- <b>1995</b>	0.333	35	35	4	11.4%

**Date: 17/10/1996****Similarity matrix: Område B - ÅR**

Group	Size	Samples
1990	4	1, 7, 13, 19
1991	4	2, 8, 14, 20
1992	3	3, 9, 15
1993	3	4, 10, 16
1994	3	5, 11, 17
1995	4	6, 12, 18, 21

Number of samples used: 21 from a possible 21

**GLOBAL TEST**

Sample statistic (Global R): 0.571

Number of permutations: 5000 (RANDOM SAMPLE FROM APPROX 4.753D+11)

Number of permuted statistics greater than or equal to global R: 0

Significance level of sample statistic: **0.0%****PAIRWISE TESTS**

Groups Used	Stat Value	Possible Permutations	Permutations Used	Significan Statistics	Significance Level
1990-1991	0.396	35	35	1	2.9%
1990-1992	0.296	35	35	3	8.6%
1990-1993	0.481	35	35	2	5.7%
1990-1994	0.611	35	35	1	2.9%
1990-1995	0.729	35	35	1	<b>2.9%</b>
1991-1992	0.481	35	35	1	2.9%
1991-1993	0.444	35	35	1	2.9%
1991-1994	0.796	35	35	1	2.9%
1991-1995	0.776	35	35	1	<b>2.9%</b>
1992-1993	-0.037	10	10	7	70.0%
1992-1994	0.778	10	10	1	10.0%
1992-1995	0.907	35	35	1	<b>2.9%</b>
1993-1994	0.778	10	10	1	10.0%
1993-1995	0.556	35	35	1	<b>2.9%</b>
1994-1995	0.741	35	35	1	<b>2.9%</b>

**Date: 17/10/1996****Similarity matrix: Område C - ÅR**

Group	Size	Samples
1990	4	1, 7, 13, 19
1991	4	2, 8, 14, 20
1992	3	3, 9, 15
1993	3	4, 10, 16
1994	3	5, 11, 17
1995	4	6, 12, 18, 21

Number of samples used: 21 from a possible 21

### GLOBAL TEST

Sample statistic (Global R): 0.227

Number of permutations: 5000 (RANDOM SAMPLE FROM APPROX 4.753D+11)

Number of permuted statistics greater than or equal to global R: 107

Significance level of sample statistic: **2.2%**

### PAIRWISE TESTS

Groups Used	Stat Value	Possible Permutations	Permutations Used	Significant Statistics	Significance Level
1990-1991	0.187	35	35	6	17.1%
1990-1992	0.148	35	35	10	28.6%
1990-1993	0.278	35	35	7	20.0%
1990-1994	0.204	35	35	7	20.0%
1990- <b>1995</b>	0.427	35	35	1	<b>2.9%</b>
1991-1992	0.130	35	35	11	31.4%
1991-1993	0.185	35	35	12	34.3%
1991-1994	0.148	35	35	11	31.4%
1991- <b>1995</b>	0.063	35	35	12	34.3%
1992-1993	0.296	10	10	4	40.0%
1992-1994	0.259	10	10	2	20.0%
1992- <b>1995</b>	0.537	35	35	2	5.7%
1993-1994	0.296	10	10	2	20.0%
1993- <b>1995</b>	0.315	35	35	6	17.1%
1994- <b>1995</b>	0.296	35	35	5	14.3%

Date: 17/10/1996

Similarity matrix: **Område D - ÅR**

Group	Size	Samples
1990	4	1, 4, 10, 16
1991	4	2, 5, 11, 17
1992	3	6, 12, 18
1993	3	7, 13, 19
1994	3	8, 14, 20
<b>1995</b>	4	3, 9, 15, 21

Number of samples used: 21 from a possible 21

### GLOBAL TEST

Sample statistic (Global R): 0.399

Number of permutations: 5000 (RANDOM SAMPLE FROM APPROX 4.753D+11)

Number of permuted statistics greater than or equal to global R: 3

Significance level of sample statistic: **0.1%**

**PAIRWISE TESTS**

Groups Used	Stat Value	Possible Permutations	Permutations Used	Significant Statistics	Significance Level
1990-1991	0.438	35	35	1	2.9%
1990-1992	0.333	35	35	6	17.1%
1990-1993	0.222	35	35	9	25.7%
1990-1994	0.444	35	35	2	5.7%
1990- <b>1995</b>	0.521	35	35	1	<b>2.9%</b>
1991-1992	0.407	35	35	3	8.6%
1991-1993	0.574	35	35	2	5.7%
1991-1994	0.722	35	35	1	2.9%
1991- <b>1995</b>	0.448	35	35	2	5.7%
1992-1993	0.333	10	10	4	40.0%
1992-1994	0.667	10	10	1	10.0%
1992- <b>1995</b>	0.759	35	35	1	<b>2.9%</b>
1993-1994	0.370	10	10	3	30.0%
1993- <b>1995</b>	0.296	35	35	4	11.4%
1994- <b>1995</b>	0.407	35	35	1	<b>2.9%</b>

## Transektregistreringer - Alger

## ARTSLISTER - ALGER

## M= Morfologi

F= filamentøs (trådformet), M=monosiphon (encellele rekker), E= encrusting (overvoksende), L= leaflike (bladformete),  
G=globulær (rundaktig), P=polysiphon (flercellele rekker).

## P= Klasser

G=grønnalger, R= rødalger, B= brunalger

G= Grupperinger under bearbeidelse av multivariate analyser

A = Hovedområde A m/forekomst innen området i 0-24m dyp

B = Hovedområde B m/forekomst innen området i 0-24m dyp

C = Hovedområde C m/forekomst innen området i 0-24m dyp

D = Hovedområde D m/forekomst innen området i 0-24m dyp

TOT = Samlet forekomst for art/taxa over alle områder

Kode	Latinsk navn	M	P	G	A	B	C	D	TOT
ACROX	Acrosiphoniaceae indet.	FM	G		6	0	0	0	6
ACRRP	Acrosorium reptans	EL	R		0	0	0	19	19
ACRWI	Acrochaete wittrockii	FM	G		0	0	0	1	1
AGLBI	Aglathamnion bipinnatum	FM	R		0	2	2	13	17
AGLBY	Aglathamnion byssoides	FM	R		2	37	9	2	50
AGLSE	Aglaothamnion sepositum	FM	R		0	0	19	67	86
AHNPL	Ahnfeltia plicata	FP	R		49	30	96	35	210
ALAES	Alaria esculenta	LL	B	ALARI	0	0	349	309	658
APORU	Apoglossum ruscifolium	LL	R		111	326	200	24	661
ASPFI	Asperococcus fistulosus	GG	B	ASPER	0	0	9	0	9
AUDAL	Audouinella alariae	FM	R	AUDOA	0	0	91	26	117
AUDCO	Audouinella concrescens	FM	R	AUDOI	26	28	34	43	131
AUDDA	Audouinella daviesii	FM	R	AUDOA	0	43	36	28	107
AUDIN	Audouinella infestans	FM	R	AUDOU	61	64	152	198	475
AUDME	Audouinella membranacea	FM	R	AUDOU	28	46	347	344	765
AUDOZ	Audouinella sp.	FM	R	AUDOI	161	328	441	362	1292
AUDPA	Audouinella parvula	FM	R	AUDOI	0	0	0	28	28
AUDPU	Audouinella purpurea	FM	R	AUDOI	14	162	295	335	806
AUDSE	Audouinella secundata	FM	R	AUDOI	0	6	0	0	6
AUDSP	Audouinella spetsbergensis	FM	R	AUDOI	0	0	0	64	64
AUDZZ	Audouinella spp.	FM	R	AUDOI	17	0	2	0	19
BANAT	Bangia atropurpurea	FP	R		78	55	56	23	212
BLIMA	Blidingia marginata	??	G		0	0	0	4	4
BLIMI	Blidingia minima	LL	G		0	6	5	0	11
BONAS	Bonnemaisonia asparagoides: gamet.	FP	R		275	534	333	354	1496
BROBY	Brongniartella byssoides	FP	R		117	405	460	231	1213
BRUNT	Brunt på fjell - mørkt	EE	B		354	1230	558	606	2748
BRYHY	Bryopsis hypnoides	FM	G		2	18	2	5	27
BRYPL	Bryopsis plumosa	FM	G		86	103	176	126	491
CALCO	Callithamnion corymbosum	FM	R		21	141	54	37	253

Kode	Latinsk navn	M	P	G	A	B	C	D	TOT
ACROX	Acrosiphoniaceae indet.	FM	G		6	0	0	0	6
ACRRP	Acrosorium reptans	EL	R		0	0	0	19	19
ACRWI	Acrochaete wittrockii	FM	G		0	0	0	1	1
AGLBI	Aglathamnion bipinnatum	FM	R		0	2	2	13	17
AGLBY	Aglathamnion byssoides	FM	R		2	37	9	2	50
AGLSE	Aglaothamnion sepositum	FM	R		0	0	19	67	86
AHNPL	Ahnfeltia plicata	FP	R		49	30	96	35	210
ALAES	Alaria esculenta	LL	B	ALARI	0	0	349	309	658
APORU	Apoglossum ruscifolium	LL	R		111	326	200	24	661
ASPFI	Asperococcus fistulosus	GG	B	ASPER	0	0	9	0	9
AUDAL	Audouinella alariae	FM	R	AUDOA	0	0	91	26	117
AUDCO	Audouinella concrescens	FM	R	AUDOI	26	28	34	43	131
AUDDA	Audouinella daviesii	FM	R	AUDOA	0	43	36	28	107
AUDIN	Audouinella infestans	FM	R	AUDOU	61	64	152	198	475
AUDME	Audouinella membranacea	FM	R	AUDOU	28	46	347	344	765
AUDOZ	Audouinella sp.	FM	R	AUDOI	161	328	441	362	1292
AUDPA	Audouinella parvula	FM	R	AUDOI	0	0	0	28	28
AUDPU	Audouinella purpurea	FM	R	AUDOI	14	162	295	335	806
AUDSE	Audouinella secundata	FM	R	AUDOI	0	6	0	0	6
AUDSP	Audouinella spetsbergensis	FM	R	AUDOI	0	0	0	64	64
AUDZZ	Audouinella spp.	FM	R	AUDOI	17	0	2	0	19
BANAT	Bangia atropurpurea	FP	R		78	55	56	23	212
BLIMA	Blidingia marginata	??	G		0	0	0	4	4
BLIMI	Blidingia minima	LL	G		0	6	5	0	11
BONAS	Bonnemaisonia asparagoides: gamet.	FP	R		275	534	333	354	1496
BROBY	Brongniartella byssoides	FP	R		117	405	460	231	1213
BRUNT	Brunt på fjell - mørkt	EE	B		354	1230	558	606	2748
BRYHY	Bryopsis hypnoides	FM	G		2	18	2	5	27
BRYPL	Bryopsis plumosa	FM	G		86	103	176	126	491
CALCO	Callithamnion corymbosum	FM	R		21	141	54	37	253
CALCR	Callophyllis cristata	LL	R		22	351	751	561	1685
CALLA	Callophyllis laciniata	LL	R		7	57	185	265	514
CALLZ	Callithamnion sp.	FM	R		1	3	2	0	6
CERDI	Ceramium diaphanum	FP	R	CERAS	0	0	2	0	2
CERFP	Ceramium fruticulosm f. penecillata	FP	R	CERAM	0	0	2	0	2
CERFR	Ceramium fruticulosm	FP	R	CERAM	0	0	2	4	6
CERPA	Ceramium pallidum	FM	R	CERAM	0	3	0	0	3
CERRE	Ceramium rescissum	FM	R	CERAM	11	12	15	15	53
CERRU	Ceramium rubrum	FM	R	CERAM	585	450	234	57	1326
CERSE	Ceramium secundatum	FM	R	CERAM	0	0	3	0	3
CERSH	Ceramium shuttleworthianum	FM	R		0	0	0	37	37
CERST	Ceramium strictum	FM	R	CERAS	6	14	7	0	27
CHAAE	Chaetomorpha aerea	FM	G	CHAEL	14	0	5	0	19
CHALI	Chaetomorpha linum	FM	G	CHAEL	0	0	5	2	7
CHAME	Chaetomorpha melagonium	FM	G		233	279	728	549	1789
CHLDE	Chlorochytrium cf. dermatocolax	GG	G		0	1	0	0	1
CHOCR	Chondrus crispus	FL	R		205	563	293	51	1112
CHOFI	Chorda filum	FP	B		0	0	9	1	10
CHOFI	Chordaria flagelliformis	FP	B		57	134	16	0	207
CHOTO	Chorda tomentosa	FP	B		307	252	67	63	689
CHYVE	Chylocladia verticillata	FP	R		0	59	2	0	61
CLAAL	Cladophora albida	FM	G	CLADO	0	13	1	0	14
CLADZ	Cladophora sp.	FM	G	CLADO	2	17	22	4	45
CLAHU	Cladophora hutchinsiae	FM	G		0	8	0	0	8
CLARU	Cladophora rupestris	FM	G		36	60	66	42	204



Kode	Latinsk navn	M	P	G	A	B	C	D	TOT
ACROX	Acrosiphoniaceae indet.	FM	G		6	0	0	0	6
ACRRP	Acrosorium reptans	EL	R		0	0	0	19	19
ACRWI	Acrochaete wittrockii	FM	G		0	0	0	1	1
AGLBI	Aglathamnion bipinnatum	FM	R		0	2	2	13	17
AGLBY	Aglathamnion byssoides	FM	R		2	37	9	2	50
AGLSE	Aglaothamnion sepositum	FM	R		0	0	19	67	86
AHNPL	Ahnfeltia plicata	FP	R		49	30	96	35	210
ALAES	Alaria esculenta	LL	B	ALARI	0	0	349	309	658
APORU	Apoglossum ruscifolium	LL	R		111	326	200	24	661
ASPFI	Asperococcus fistulosus	GG	B	ASPER	0	0	9	0	9
AUDAL	Audouinella alariae	FM	R	AUDOA	0	0	91	26	117
AUDCO	Audouinella concrescens	FM	R	AUDOI	26	28	34	43	131
AUDDA	Audouniella daviesii	FM	R	AUDOA	0	43	36	28	107
AUDIN	Audouniella infestans	FM	R	AUDOU	61	64	152	198	475
AUDME	Audouniella membranacea	FM	R	AUDOU	28	46	347	344	765
AUDOZ	Audouniella sp.	FM	R	AUDOI	161	328	441	362	1292
AUDPA	Audouniella parvula	FM	R	AUDOI	0	0	0	28	28
AUDPU	Audouinella purpurea	FM	R	AUDOI	14	162	295	335	806
AUDSE	Audoniella secundata	FM	R	AUDOI	0	6	0	0	6
AUDSP	Audouinella spetsbergensis	FM	R	AUDOI	0	0	0	64	64
AUDZZ	Audouniella spp.	FM	R	AUDOI	17	0	2	0	19
BANAT	Bangia atropurpurea	FP	R		78	55	56	23	212
BLIMA	Blidingia marginata	??	G		0	0	0	4	4
BLIMI	Blidingia minima	LL	G		0	6	5	0	11
BONAS	Bonnemaisonia asparagoides: gamet.	FP	R		275	534	333	354	1496
BROBY	Brongniartella byssoides	FP	R		117	405	460	231	1213
BRUNT	Brunt på fjell - mørkt	EE	B		354	1230	558	606	2748
BRYHY	Bryopsis hypnoides	FM	G		2	18	2	5	27
BRYPL	Bryopsis plumosa	FM	G		86	103	176	126	491
CALCO	Callithamnion corymbosum	FM	R		21	141	54	37	253
CLASE	Cladophora sericea	FM	G	CLADO	0	0	6	1	7
CLASP	Cladostephus spongiosus	FP	B		0	4	0	2	6
CODFR	Codium fragile	FP	G		0	7	0	1	8
COLPE	Colpomenia peregrina	GG	G		0	7	2	0	9
CORAX	Coralliniaceae indet./ Lithothamnion spp + Phymatholithon spp	??	R		1279	1718	1883	1615	6495
COROF	Corallina officinalis	FM	R		617	760	669	561	2607
CRUPE	Cruoria pellita	EE	R		505	705	678	953	2841
CUTAG	Cutleria multifida Aglazoniastadia	EL	B		0	175	124	929	1228
CYSPU	Cystoclonium purpureum	FP	R		45	34	3	3	85
DELSA	Delesseria sanguinea	LL	R		723	1085	899	904	3611
DERMA	Derbesia marina	FM	G		55	115	78	384	632
DESAC	Desmarestia aculeata	FP	B		116	225	104	539	984
DESLI	Desmarestia ligulata	FP	B		0	0	0	1	1
DESUN	Desmotrichum undulatum	LL	B		0	1	0	0	1
DESVI	Desmarestia viridis	FP	B		108	299	310	652	1369
DICDI	Dictyota dichotoma	LL	B		0	0	8	474	482
DICFO	Dictyosiphon foeniculaceus	FP	B		19	58	8	0	85
DILCA	Dilsea carnosa	LL	R		209	567	432	101	1309
DUMCO	Dumontia contorta	FP	R		45	113	16	5	179
ECTFA	Ectocarpus fasciculatus	FM	B	ECTO	49	355	272	324	1000
ECTO	Ectocarpales indet.	FF	B		0	0	0	4	4
ECTOZ	Ectocarpus sp.	FM	B	ECTO	0	0	37	0	37
ECTSI	Ectocarpus siliculosus	FM	B	ECTO	88	137	8	45	278
ELAFU	Elachista fucicola	FM	B		0	11	9	24	44

Kode	Latinsk navn	M	P	G	A	B	C	D	TOT
ACROX	Acrosiphoniaceae indet.	FM	G		6	0	0	0	6
ACRRP	Acrosorium reptans	EL	R		0	0	0	19	19
ACRWI	Acrochaete wittrockii	FM	G		0	0	0	1	1
AGLBI	Aglathamnion bipinnatum	FM	R		0	2	2	13	17
AGLBY	Aglathamnion byssoides	FM	R		2	37	9	2	50
AGLSE	Aglaothamnion sepositum	FM	R		0	0	19	67	86
AHNPL	Ahnfeltia plicata	FP	R		49	30	96	35	210
ALAES	Alaria esculenta	LL	B	ALARI	0	0	349	309	658
APORU	Apoglossum ruscifolium	LL	R		111	326	200	24	661
ASPFI	Asperococcus fistulosus	GG	B	ASPER	0	0	9	0	9
AUDAL	Audouinella alariae	FM	R	AUDOA	0	0	91	26	117
AUDCO	Audouinella concrescens	FM	R	AUDOI	26	28	34	43	131
AUDDA	Audouinella daviesii	FM	R	AUDOA	0	43	36	28	107
AUDIN	Audouinella infestans	FM	R	AUDOU	61	64	152	198	475
AUDME	Audouinella membranacea	FM	R	AUDOU	28	46	347	344	765
AUDOZ	Audouinella sp.	FM	R	AUDOI	161	328	441	362	1292
AUDPA	Audouinella parvula	FM	R	AUDOI	0	0	0	28	28
AUDPU	Audouinella purpurea	FM	R	AUDOI	14	162	295	335	806
AUDSE	Audouinella secundata	FM	R	AUDOI	0	6	0	0	6
AUDSP	Audouinella spetsbergensis	FM	R	AUDOI	0	0	0	64	64
AUDZZ	Audouinella spp.	FM	R	AUDOI	17	0	2	0	19
BANAT	Bangia atropurpurea	FP	R		78	55	56	23	212
BLIMA	Blidingia marginata	??	G		0	0	0	4	4
BLIMI	Blidingia minima	LL	G		0	6	5	0	11
BONAS	Bonnemaisonia asparagoides: gamet.	FP	R		275	534	333	354	1496
BROBY	Brongniartella byssoides	FP	R		117	405	460	231	1213
BRUNT	Brunt på fjell - mørkt	EE	B		354	1230	558	606	2748
BRYHY	Bryopsis hypnoides	FM	G		2	18	2	5	27
BRYPL	Bryopsis plumosa	FM	G		86	103	176	126	491
CALCO	Callithamnion corymbosum	FM	R		21	141	54	37	253
ENTCO	Enteromorpha compressa	GG	G	ENTER	0	0	0	1	1
ENTEZ	Enteromorpha sp.	GG	G	ENTER	6	39	31	4	80
ENTIN	Enteromorpha intestinalis	GG	G	ENTER	26	31	28	22	107
ENTLI	Enteromorpha linza	GG	G	ENTER	2	2	2	0	6
ENTPR	Enteromorpha prolifera	GG	G	ENTER	5	0	4	13	22
ENTZZ	Enteromorpha spp.	GG	G	ENTER	8	0	0	0	8
EPIFL	Epicladia flustrae	GG	G		69	40	10	3	122
ERYIR	Erythrocladia irregularis	FP	R		40	5	38	8	91
EUDVE	Eudesme vermicularis	FP	B		0	0	4	0	4
FUCAN	Fucus distichus ssp.anceps	FP	B	FUCUD	0	0	4	0	4
FUCDI	Fucus distichus	FP	B	FUCUD	0	0	2	2	4
FUCSE	Fucus serratus	FP	B		0	50	10	29	89
FUCSP	Fucus spiralis	FP	B		0	0	2	6	8
FUCVE	Fucus vesiculosus	FP	B		2	0	9	18	29
FURLU	Furcellaria lumbricalis	FP	R		71	127	112	0	310
GIFGR	Giffordia granulosa	FM	B		0	1	6	18	25
GIFHI	Giffordia hincksiae	FM	B		0	0	99	287	386
GIFOV	Giffordia ovata	FM	B		64	29	6	10	109
GIFSA	Giffordia sandriana	FM	B		0	0	0	10	10
GLOCA	Gloiosiphonia capillaris	FP	R		35	5	1	0	41
GRISK	Grønt i BALANUS	EE	G		2	0	0	21	23
HALOV	Halicystis ovalis	GG	G		14	30	337	145	526
HALSI	Halidrys siliquosa	FP	B		279	250	104	238	871
HETPL	Heterosiphonia plumosa	FP	R		22	83	0	0	105
HILRU	Hildenbrandia rubra	EE	R		164	90	102	57	413

Kode	Latinsk navn	M	P	G	A	B	C	D	TOT
ACROX	Acrosiphoniaceae indet.	FM	G		6	0	0	0	6
ACRRP	Acrosorium reptans	EL	R		0	0	0	19	19
ACRWI	Acrochaete wittrockii	FM	G		0	0	0	1	1
AGLBI	Aglathamnion bipinnatum	FM	R		0	2	2	13	17
AGLBY	Aglathamnion byssoides	FM	R		2	37	9	2	50
AGLSE	Aglaothamnion sepositum	FM	R		0	0	19	67	86
AHNPL	Ahnfeltia plicata	FP	R		49	30	96	35	210
ALAES	Alaria esculenta	LL	B	ALARI	0	0	349	309	658
APORU	Apoglossum ruscifolium	LL	R		111	326	200	24	661
ASPFI	Asperococcus fistulosus	GG	B	ASPER	0	0	9	0	9
AUDAL	Audouinella alariae	FM	R	AUDOA	0	0	91	26	117
AUDCO	Audouinella concrescens	FM	R	AUDOI	26	28	34	43	131
AUDDA	Audouinella daviesii	FM	R	AUDOA	0	43	36	28	107
AUDIN	Audouinella infestans	FM	R	AUDOU	61	64	152	198	475
AUDME	Audouinella membranacea	FM	R	AUDOU	28	46	347	344	765
AUDOZ	Audouinella sp.	FM	R	AUDOI	161	328	441	362	1292
AUDPA	Audouinella parvula	FM	R	AUDOI	0	0	0	28	28
AUDPU	Audouinella purpurea	FM	R	AUDOI	14	162	295	335	806
AUDSE	Audouinella secundata	FM	R	AUDOI	0	6	0	0	6
AUDSP	Audouinella spetsbergensis	FM	R	AUDOI	0	0	0	64	64
AUDZZ	Audouinella spp.	FM	R	AUDOI	17	0	2	0	19
BANAT	Bangia atropurpurea	FP	R		78	55	56	23	212
BLIMA	Blidingia marginata	??	G		0	0	0	4	4
BLIMI	Blidingia minima	LL	G		0	6	5	0	11
BONAS	Bonnemaisonia asparagoides: gamet.	FP	R		275	534	333	354	1496
BROBY	Brongniartella byssoides	FP	R		117	405	460	231	1213
BRUNT	Brunt på fjell - mørkt	EE	B		354	1230	558	606	2748
BRYHY	Bryopsis hypnoides	FM	G		2	18	2	5	27
BRYPL	Bryopsis plumosa	FM	G		86	103	176	126	491
CALCO	Callithamnion corymbosum	FM	R		21	141	54	37	253
HIMEL	Himantalia elongata	FP	B		0	0	19	30	49
HYMSE	Bonnemaisonia asparagoides: 2n	FM	R		2	68	0	0	70
ISTSP	Isthmoplea sphaerophora	FM	B		0	0	0	5	5
LAMDI	Laminaria digitata	LL	B	LAMID	4	29	127	134	294
LAMHY	Laminaria hyperborea	LL	B	LAMIH	297	950	1398	1240	3885
LAMIZ	Laminaria sp.	LL	B	LAMIN	109	231	306	316	962
LAMJU	Laminaria juv	LL	B	LAMIN	13	8	19	68	108
LAMSA	Laminaria saccharina	LL	B	LAMIS	150	713	243	835	1941
LAMTO	Laminariocolax tomentosoides	FM	B		0	0	0	24	24
LAUPI	Laurencia pinnatifida	FP	R		0	16	0	0	16
LEADI	Leathesia difformis	GG	B		0	17	9	0	26
LEPFA	Leptonematella faciculata	FM	B		8	0	0	0	8
LITFI	Litosiphon filiformes	FP	B		0	21	0	0	21
LITLA	Litosiphon laminariae	FP	B		0	0	0	14	14
LITPU	Litosiphon pusillus	FP	B		0	0	21	71	92
LOMCL	Lomentaria clavellosa	FP	R		232	586	105	712	1635
LOMOR	Lomentaria orcadensis	FP	R		64	120	100	102	386
MASST	Mastocarpus stellata	FP	R		0	13	86	62	161
MELME	Melobesia membranacea	EE	R	PNEOP	36	226	295	77	634
MEMAL	Membranoptera alata	FL	R		2	226	563	417	1208
MESVE	Mesogloia vermiculata	FP	B		0	30	0	2	32
MIKPO	Mikrosyphar polysiphoniae	FM	B		0	0	6	6	12
MONGR	Monostroma grevillei	GG	G		4	3	9	6	22
NEMHE	Nemalion helminthoides	FP	R		0	0	0	8	8
OCHHY	Ochlochaete hystrix	EE	G		0	0	6	6	12

Kode	Latinsk navn	M	P	G	A	B	C	D	TOT
ACROX	Acrosiphoniaceae indet.	FM	G		6	0	0	0	6
ACRRP	Acrosorium reptans	EL	R		0	0	0	19	19
ACRWI	Acrochaete wittrockii	FM	G		0	0	0	1	1
AGLBI	Aglathamnion bipinnatum	FM	R		0	2	2	13	17
AGLBY	Aglathamnion byssoides	FM	R		2	37	9	2	50
AGLSE	Aglaothamnion sepositum	FM	R		0	0	19	67	86
AHNPL	Ahnfeltia plicata	FP	R		49	30	96	35	210
ALAES	Alaria esculenta	LL	B	ALARI	0	0	349	309	658
APORU	Apoglossum ruscifolium	LL	R		111	326	200	24	661
ASPMI	Asperococcus fistulosus	GG	B	ASPER	0	0	9	0	9
AUDAL	Audouinella alariae	FM	R	AUDOA	0	0	91	26	117
AUDCO	Audouinella concrescens	FM	R	AUDOI	26	28	34	43	131
AUDDA	Audouinella daviesii	FM	R	AUDOA	0	43	36	28	107
AUDIN	Audouinella infestans	FM	R	AUDOU	61	64	152	198	475
AUDME	Audouinella membranacea	FM	R	AUDOU	28	46	347	344	765
AUDOZ	Audouinella sp.	FM	R	AUDOI	161	328	441	362	1292
AUDPA	Audouinella parvula	FM	R	AUDOI	0	0	0	28	28
AUDPU	Audouinella purpurea	FM	R	AUDOI	14	162	295	335	806
AUDSE	Audouinella secundata	FM	R	AUDOI	0	6	0	0	6
AUDSP	Audouinella spetsbergensis	FM	R	AUDOI	0	0	0	64	64
AUDZZ	Audouinella spp.	FM	R	AUDOI	17	0	2	0	19
BANAT	Bangia atropurpurea	FP	R		78	55	56	23	212
BLIMA	Blidingia marginata	??	G		0	0	0	4	4
BLIMI	Blidingia minima	LL	G		0	6	5	0	11
BONAS	Bonnemaisonia asparagoides: gamet.	FP	R		275	534	333	354	1496
BROBY	Brongniartella byssoides	FP	R		117	405	460	231	1213
BRUNT	Brunt på fjell - mørkt	EE	B		354	1230	558	606	2748
BRYHY	Bryopsis hypnoides	FM	G		2	18	2	5	27
BRYPL	Bryopsis plumosa	FM	G		86	103	176	126	491
CALCO	Callithamnion corymbosum	FM	R		21	141	54	37	253
ODODE	Odonthalia dentata	LL	R		180	514	309	6	1009
PALPA	Palmaria palmata	LL	R		0	213	564	593	1370
PELCA	Pelvetia canaliculata	FP	B		0	0	0	2	2
PETFA	Petalonia fascia	GG	B		43	37	16	27	123
PETHE	Petrocelis hennedyi	EE	R		0	0	8	15	23
PETMA	Petroderma maculiforme	EE	B		7	0	4	38	49
PEYDU	Peyssonnelia dubyi	EE	R		0	0	0	10	10
PHATE	Phaeophila tenuis	FM	G	STRBL	0	0	0	6	6
PHYCR	Phyllophora crispa	FL	R		134	222	405	273	1034
PHYLZ	Phyllophora sp.	FL	R		6	0	0	0	6
PHYPS	Phyllophora pseudoceranoides	FL	R	PHYLL	235	441	226	28	930
PHYRU	Phycodrys rubens	LL	R		572	931	1060	727	3290
PHYTR	Phyllophora truncata	FL	R	PHYLL	140	484	385	60	1069
PILLI	Pilayella littoralis	FM	B		14	0	33	0	47
PLOCA	Plocamium cartilagineum	FP	R		1	4	107	2	114
PLUEL	Plumaria elegans	FP	R		1	39	1	0	41
PNELI	Pneophyllum limitatum	EE	R	PNEOP	37	215	268	93	613
POLAR	Polysiphonia cf. arctica	FP	R	POLYU	8	0	0	0	8
POLBR	Polysiphonia brodiaei	FP	R		52	40	22	38	152
POLEL	Polysiphonia elongata	FP	R		146	92	2	2	242
POLEM	Polysiphonia elongata f. microdendron	FP	R		0	19	0	0	19
POLFI	Polysiphonia fibrata	FP	R	POLYV	2	0	0	0	2
POLHA	Polysiphonia harveyi	FP	R	POLYU	0	22	9	0	31
POLNI	Polysiphonia nigrescens	FP	R		25	3	3	0	31
POLRT	Polyides rotundus	FP	R		16	25	3	0	44

Kode	Latinsk navn	M	P	G	A	B	C	D	TOT
ACROX	Acrosiphoniaceae indet.	FM	G		6	0	0	0	6
ACRRP	Acrosorium reptans	EL	R		0	0	0	19	19
ACRWI	Acrochaete wittrockii	FM	G		0	0	0	1	1
AGLBI	Aglathamnion bipinnatum	FM	R		0	2	2	13	17
AGLBY	Aglathamnion byssoides	FM	R		2	37	9	2	50
AGLSE	Aglaothamnion sepositum	FM	R		0	0	19	67	86
AHNPL	Ahnfeltia plicata	FP	R		49	30	96	35	210
ALAES	Alaria esculenta	LL	B	ALARI	0	0	349	309	658
APORU	Apoglossum ruscifolium	LL	R		111	326	200	24	661
ASPFI	Asperococcus fistulosus	GG	B	ASPER	0	0	9	0	9
AUDAL	Audouinella alariae	FM	R	AUDOA	0	0	91	26	117
AUDCO	Audouinella concrescens	FM	R	AUDOI	26	28	34	43	131
AUDDA	Audouiniella daviesii	FM	R	AUDOA	0	43	36	28	107
AUDIN	Audouiniella infestans	FM	R	AUDOU	61	64	152	198	475
AUDME	Audouiniella membranacea	FM	R	AUDOU	28	46	347	344	765
AUDOZ	Audouiniella sp.	FM	R	AUDOI	161	328	441	362	1292
AUDPA	Audouiniella parvula	FM	R	AUDOI	0	0	0	28	28
AUDPU	Audouinella purpurea	FM	R	AUDOI	14	162	295	335	806
AUDSE	Audouiniella secundata	FM	R	AUDOI	0	6	0	0	6
AUDSP	Audouinella spetsbergensis	FM	R	AUDOI	0	0	0	64	64
AUDZZ	Audouiniella spp.	FM	R	AUDOI	17	0	2	0	19
BANAT	Bangia atropurpurea	FP	R		78	55	56	23	212
BLIMA	Blidingia marginata	??	G		0	0	0	4	4
BLIMI	Blidingia minima	LL	G		0	6	5	0	11
BONAS	Bonnemaisonia asparagoides: gamet.	FP	R		275	534	333	354	1496
BROBY	Brongniartella byssoides	FP	R		117	405	460	231	1213
BRUNT	Brunt på fjell - mørkt	EE	B		354	1230	558	606	2748
BRYHY	Bryopsis hypnoides	FM	G		2	18	2	5	27
BRYPL	Bryopsis plumosa	FM	G		86	103	176	126	491
CALCO	Callithamnion corymbosum	FM	R		21	141	54	37	253
POLUR	Polysiphonia urceolata	FP	R	POLYU	645	1068	1028	870	3611
POLVF	Polysiphonia violacea f.fibrillosa	FP	R	POLYV	0	22	9	4	35
POLVI	Polysiphonia violacea	FP	R	POLYV	58	90	24	13	185
POLYZ	Polysiphonia sp.	FP	R		1	4	0	0	5
PORCO	Porphyropsis coccinea	LL	R		33	148	82	438	701
PORLI	Porphyra linearis	LL	R		33	25	54	45	157
PORPP	Porphyra purpurea	LL	R		0	0	1	3	4
PORUM	Porphyra umbilicalis	LL	R		48	59	95	80	282
PRAST	Prasiola stipitata	GG	G		10	19	32	2	63
PRISC	Pringsheimiella scutata	EE	G		0	1	4	2	7
PROSP	Protectocarpus speciosus	FM	B	STRBL	0	0	0	5	5
PSEEX	Pseudolithoderma extensum	EE	B		0	0	5	10	15
PTEPA	Pterosiphonia parasittica	FP	R		235	321	400	288	1244
PTEPB	Pterothamnion plumula bebbii	FM	R	PTERO	3	0	2	0	5
PTEPL	Pterothamnion plumula	FM	R	PTERO	109	446	257	189	1001
PTEPP	Pterothamnion plumula plumula	FM	R	PTERO	65	85	66	29	245
PTEPS	Pterothamnion plumula spinescen	FM	R	PTERO	13	0	21	0	34
PTIPL	Ptilota plumosa	FL	R		14	198	731	483	1426
PUNPL	Punctaria plantaginea	GG	B		0	0	0	2	2
RALBO	Ralfsia borneti	EE	B	RALFS	0	0	1	0	1
RALVE	Ralfsia verrucosa	EE	B	RALFS	6	4	0	4	14
RHIIM	Rhizoclonium implexum	FM	G	CHAEI	17	0	0	0	17
RHITO	Rhizoclonium tortuosum	?	G		1	0	0	0	1
RHOCO	Rhodomela confervoides	FP	R		211	795	610	286	1902
RHODI	Rhodophyllis divaricata	LL	R		0	0	1	55	56

Kode	Latinsk navn	M	P	G	A	B	C	D	TOT
ACROX	Acrosiphoniaceae indet.	FM	G		6	0	0	0	6
ACRRP	Acrosorium reptans	EL	R		0	0	0	19	19
ACRWI	Acrochaete wittrockii	FM	G		0	0	0	1	1
AGLBI	Aglathamnion bipinnatum	FM	R		0	2	2	13	17
AGLBY	Aglathamnion byssoides	FM	R		2	37	9	2	50
AGLSE	Aglaothamnion sepositum	FM	R		0	0	19	67	86
AHNPL	Ahnfeltia plicata	FP	R		49	30	96	35	210
ALAES	Alaria esculenta	LL	B	ALARI	0	0	349	309	658
APORU	Apoglossum ruscifolium	LL	R		111	326	200	24	661
ASPMI	Asperococcus fistulosus	GG	B	ASPER	0	0	9	0	9
AUDAL	Audouinella alariae	FM	R	AUDOA	0	0	91	26	117
AUDCO	Audouinella concrescens	FM	R	AUDOI	26	28	34	43	131
AUDDA	Audouiniella daviesii	FM	R	AUDOA	0	43	36	28	107
AUDIN	Audouiniella infestans	FM	R	AUDOU	61	64	152	198	475
AUDME	Audouiniella membranacea	FM	R	AUDOU	28	46	347	344	765
AUDOZ	Audouiniella sp.	FM	R	AUDOI	161	328	441	362	1292
AUDPA	Audouiniella parvula	FM	R	AUDOI	0	0	0	28	28
AUDPU	Audouiniella purpurea	FM	R	AUDOI	14	162	295	335	806
AUDSE	Audouiniella secundata	FM	R	AUDOI	0	6	0	0	6
AUDSP	Audouinella spetsbergensis	FM	R	AUDOI	0	0	0	64	64
AUDZZ	Audouiniella spp.	FM	R	AUDOI	17	0	2	0	19
BANAT	Bangia atropurpurea	FP	R		78	55	56	23	212
BLIMA	Blidingia marginata	??	G		0	0	0	4	4
BLIMI	Blidingia minima	LL	G		0	6	5	0	11
BONAS	Bonnemaisonia asparagoides: gamet.	FP	R		275	534	333	354	1496
BROBY	Brongniartella byssoides	FP	R		117	405	460	231	1213
BRUNT	Brunt på fjell - mørkt	EE	B		354	1230	558	606	2748
BRYHY	Bryopsis hypnoides	FM	G		2	18	2	5	27
BRYPL	Bryopsis plumosa	FM	G		86	103	176	126	491
CALCO	Callithamnion corymbosum	FM	R		21	141	54	37	253
RHOLY	Rhodomela lycopodioides	FP	R		0	0	14	54	68
RHOPU	Rhodochorton purpureum	FM	R		0	16	28	24	68
SACPO	Saccorizza polyschides	LL	B		0	0	0	307	307
SARMU	Sargassum muticum	FL	B		0	7	0	0	7
SCAPY	Scagelia pylaisei	FM	R		12	36	3	18	69
SCYLO	Scytosiphon lomentaria	FP	B		32	78	14	35	159
SPERE	Spermothamnion repens	FM	R		13	22	0	0	35
SPHCA	Sphacelaria caespitula	FP	B	SPHAC	1	64	205	248	518
SPHCI	Sphacelaria cirrosa	FP	B		16	212	89	154	471
SPHCZ	Sphacelaria sp.	FP	B		0	2	0	0	2
SPHFU	Sphacelaria fusca	FP	B		0	0	0	39	39
SPHPG	Sphacelaria plumigera	FP	B		0	0	2	0	2
SPHPL	Sphacelaria plumosa	FP	B		13	271	340	341	965
SPHPP	Sphacelaria plumula	FP	B		0	0	0	2	2
SPHRA	Sphacelaria radicans	FP	B	SPHAC	149	806	490	500	1945
SPHRI	Sphacelaria rigidula	FP	B	SPHAC	0	0	138	151	289
SPOAE	Spongomorpha aeruginosa	FM	G	SPONP	164	189	39	22	414
SPOAR	Spongomorpha arcta	FM	G	SPONA	2	18	14	27	61
SPOCE	Spongomorpha centralis	FM	G	SPONA	28	20	0	22	70
SPOHE	Spongomorpha hemisphaerica	FM	G		0	0	0	2	2
SPONZ	Spongomorpha sp.	FM	G		1	0	0	0	1
SPOPA	Spongomorpha pallida	FM	G	SPONP	17	17	0	0	34
SPOTO	Spongonema tomentosum	FM	B		11	3	4	13	31
STITO	Stictyosiphon tortilis	FP	B		1	0	0	0	1
STREB	Streblenemoide alger	FM	B	STRBL	2	12	39	14	67

Kode	Latinsk navn	M	P	G	A	B	C	D	TOT
ACROX	Acrosiphoniaceae indet.	FM	G		6	0	0	0	6
ACRRP	Acrosorium reptans	EL	R		0	0	0	19	19
ACRWI	Acrochaete wittrockii	FM	G		0	0	0	1	1
AGLBI	Aglathamnion bipinnatum	FM	R		0	2	2	13	17
AGLBY	Aglathamnion byssoides	FM	R		2	37	9	2	50
AGLSE	Aglaothamnion sepositum	FM	R		0	0	19	67	86
AHNPL	Ahnfeltia plicata	FP	R		49	30	96	35	210
ALAES	Alaria esculenta	LL	B	ALARI	0	0	349	309	658
APORU	Apoglossum ruscifolium	LL	R		111	326	200	24	661
ASPFI	Asperococcus fistulosus	GG	B	ASPER	0	0	9	0	9
AUDAL	Audouinella alariae	FM	R	AUDOA	0	0	91	26	117
AUDCO	Audouinella concrescens	FM	R	AUDOI	26	28	34	43	131
AUDDA	Audouniella daviesii	FM	R	AUDOA	0	43	36	28	107
AUDIN	Audouniella infestans	FM	R	AUDOU	61	64	152	198	475
AUDME	Audouniella membranacea	FM	R	AUDOU	28	46	347	344	765
AUDOZ	Audouniella sp.	FM	R	AUDOI	161	328	441	362	1292
AUDPA	Audouniella parvula	FM	R	AUDOI	0	0	0	28	28
AUDPU	Audouniella purpurea	FM	R	AUDOI	14	162	295	335	806
AUDSE	Audoniella secundata	FM	R	AUDOI	0	6	0	0	6
AUDSP	Audouinella spetsbergensis	FM	R	AUDOI	0	0	0	64	64
AUDZZ	Audouniella spp.	FM	R	AUDOI	17	0	2	0	19
BANAT	Bangia atropurpurea	FP	R		78	55	56	23	212
BLIMA	Blidingia marginata	??	G		0	0	0	4	4
BLIMI	Blidingia minima	LL	G		0	6	5	0	11
BONAS	Bonnemaisonia asparagoides: gamet.	FP	R		275	534	333	354	1496
BROBY	Brongniartella byssoides	FP	R		117	405	460	231	1213
BRUNT	Brunt på fjell - mørkt	EE	B		354	1230	558	606	2748
BRYHY	Bryopsis hypnoides	FM	G		2	18	2	5	27
BRYPL	Bryopsis plumosa	FM	G		86	103	176	126	491
CALCO	Callithamnion corymbosum	FM	R		21	141	54	37	253
TRAIN	Bonnemaisonia hamifera: sporp.	FM	R		374	905	1082	1493	3854
UL-UR	Ulothrix/Urospora sp.	FM	G	ULOTH	33	0	6	0	39
ULOFL	Ulothrix flacca	FM	G	ULOTH	25	21	38	19	103
ULOTZ	Ulothrix sp.	FM	G	ULOTH	0	4	0	0	4
ULVLA	Ulva lactuca	LL	G	ULVUL	70	244	62	22	398
UROPE	Urospora penicilliformis	FM	G		31	32	41	7	111

## Vedlegg D. Hardbunn - Transekt - Dyr

### ANOVA Table for Arter by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	5517.47	3	1839.16	11.30	0.0000
Within groups	12207.6	75	162.768		
Total (Corr.)	17725.0	78			

#### The StatAdvisor

The ANOVA table decomposes the variance of Arter into two components: a between-group component and a within-group component. The F-ratio, which in this case equals 11.2993, is a ratio of the between-group estimate to the within-group estimate. Since the P-value of the F-test is less than 0.05, there is a statistically significant difference between the mean Arter from one level of Area to another at the 95.0% confidence level. To determine which means are significantly different from which others, select Multiple Range Tests from the list of Tabular Options.

#### Multiple Range Tests for Arter by Area

Method: 95.0 percent LSD

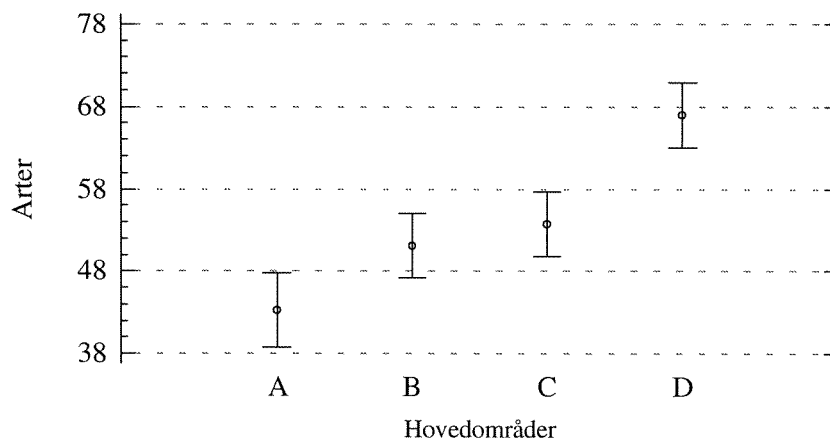
Area	Count	Mean	Homogeneous Groups
A	16	43.25	X
B	21	51.0476	XX
C	21	53.7619	X
D	21	66.9048	X

Contrast	Difference	+/- Limits
A - B	-7.79762	8.43389
A - C	*-10.5119	8.43389
A - D	*-23.6548	8.43389
B - C	-2.71429	7.84335
B - D	*-15.8571	7.84335
C - D	*-13.1429	7.84335

\* denotes a statistically significant difference.

Gjennomsnitt og 95% LSD intervall





## ANOVA Table for Arter by Area (1995)

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1863.19	3	621.063	9.61	0.0016
Within groups	775.75	12	64.6458		
Total (Corr.)	2638.94	15			

## Multiple Range Tests for Arter by Area

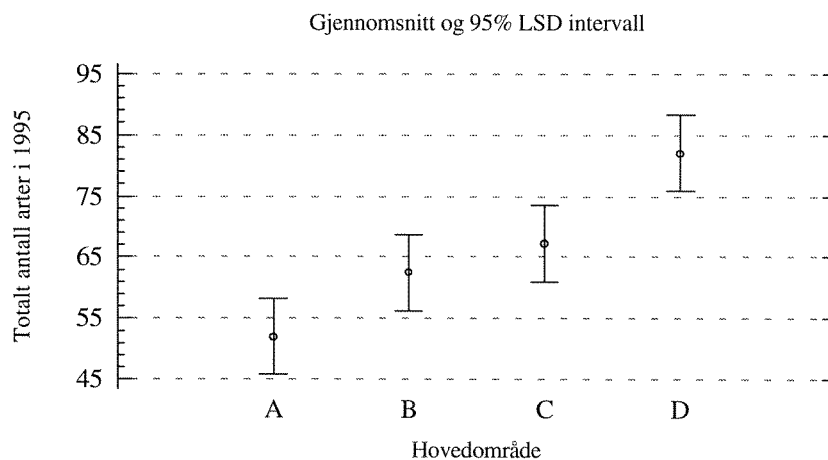
Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
A	4	52.0	X
B	4	62.5	XX
C	4	67.25	X
D	4	82.0	X

Contrast	Difference	+/- Limits
A - B	-10.5	12.3873
A - C	*-15.25	12.3873
A - D	*-30.0	12.3873
B - C	-4.75	12.3873
B - D	*-19.5	12.3873
C - D	*-14.75	12.3873

\* denotes a statistically significant difference.



ANOVA Table for Arter by St

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	7277.2	15	485.147	2.93	0.0015
Within groups	10447.8	63	165.839		
Total (Corr.)	17725.0	78			

Multiple Range Tests for Arter by St

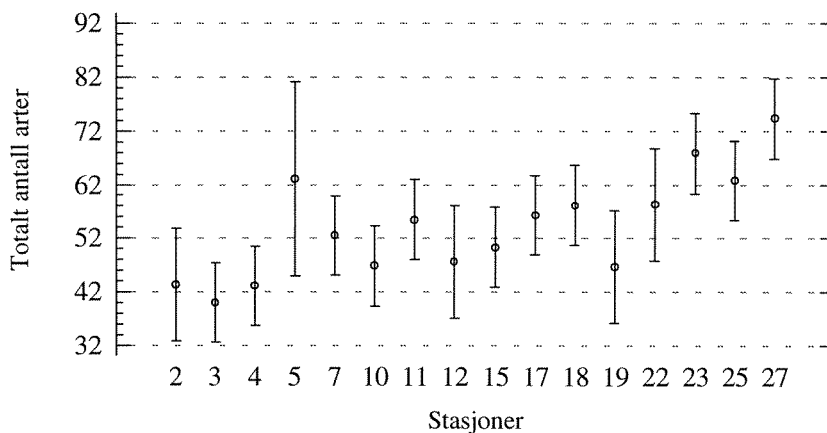
Method: 95.0 percent LSD

St	Count	Mean	Homogeneous Groups
3	6	40.0	X
4	6	43.1667	XX
2	3	43.3333	XXX
19	3	46.6667	XXXX
10	6	46.8333	XXX
12	3	47.6667	XXXX
15	6	50.3333	XXXX
7	6	52.5	XXXX
11	6	55.5	XXXXX
17	6	56.3333	XXXX
18	6	58.1667	XXX
22	3	58.3333	XXXXXX
25	6	62.8333	XXX
5	1	63.0	XXXXXXX
23	6	67.8333	XX
27	6	74.3333	X

The StatAdvisor

This table applies a multiple comparison procedure to determine which means are significantly different from which others. The bottom half of the output shows the estimated difference between each pair of means. An asterisk has been placed next to 28 pairs, indicating that these pairs show statistically significant differences at the 95.0% confidence level. At the top of the page, 6 homogenous groups are identified using columns of X's. Within each column, the levels containing X's form a group of means within which there are no statistically significant differences. The method currently being used to discriminate among the means is Fisher's least significant difference (LSD) procedure. With this method, there is a 5.0% risk of calling each pair of means significantly different when the actual difference equals 0.

Gjennomsnitt og 95% LSD intervall



## ANOVA Table for Arter by Year

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	7226.93	5	1445.39	10.05	0.0000
Within groups	10498.1	73	143.81		
Total (Corr.)	17725.0	78			

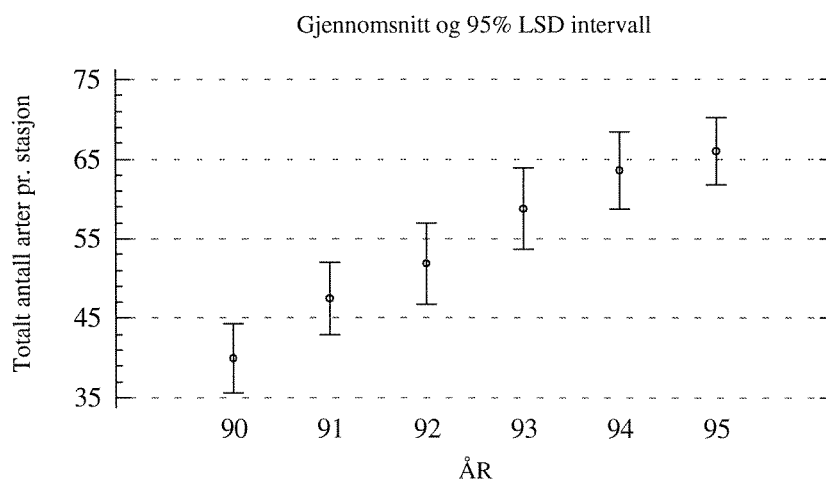
## Multiple Range Tests for Arter by Year

Method: 95.0 percent LSD

Year	Count	Mean	Homogeneous Groups
90	15	39.9333	X
91	14	47.5	XX
92	11	51.8182	XX
93	11	58.7273	XX
94	12	63.5833	X
95	16	65.9375	X

Contrast	Difference	+/- Limits
90 - 91	-7.56667	8.88159
90 - 92	*-11.8848	9.48738
90 - 93	*-18.7939	9.48738
90 - 94	*-23.65	9.25651
90 - 95	*-26.0042	8.58968
91 - 92	-4.31818	9.62967
91 - 93	*-11.2273	9.62967
91 - 94	*-16.0833	9.40229
91 - 95	*-18.4375	8.74658
92 - 93	-6.90909	10.1911
92 - 94	*-11.7652	9.97651
92 - 95	*-14.1193	9.3611
93 - 94	-4.85606	9.97651
93 - 95	-7.21023	9.3611
94 - 95	-2.35417	9.12704

\* denotes a statistically significant difference.



## ANOVA Table for Kolonidane by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	2262.91	3	754.302	13.32	0.0000
Within groups	4248.13	75	56.6417		
Total (Corr.)	6511.04	78			

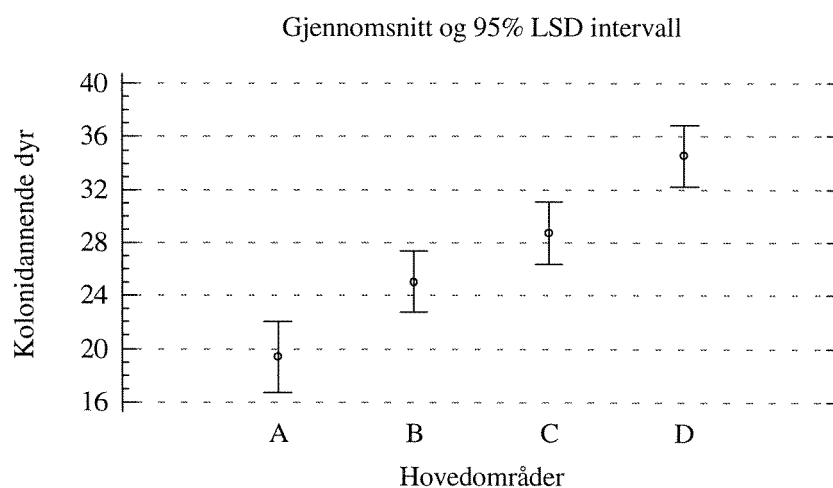
## Multiple Range Tests for Kolonidane by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
A	16	19.375	X
B	21	25.0476	X
C	21	28.7143	X
D	21	34.5714	X

Contrast	Difference	+/- Limits
A - B	*-5.67262	4.97522
A - C	*-9.33929	4.97522
A - D	*-15.1964	4.97522
B - C	-3.66667	4.62686
B - D	*-9.52381	4.62686
C - D	*-5.85714	4.62686

\* denotes a statistically significant difference.



## ANOVA Table for Kolonidane by Area (1995)

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	886.25	3	295.417	8.49	0.0027
Within groups	417.5	12	34.7917		
Total (Corr.)	1303.75	15			

## Multiple Range Tests for Kolonidane by Area

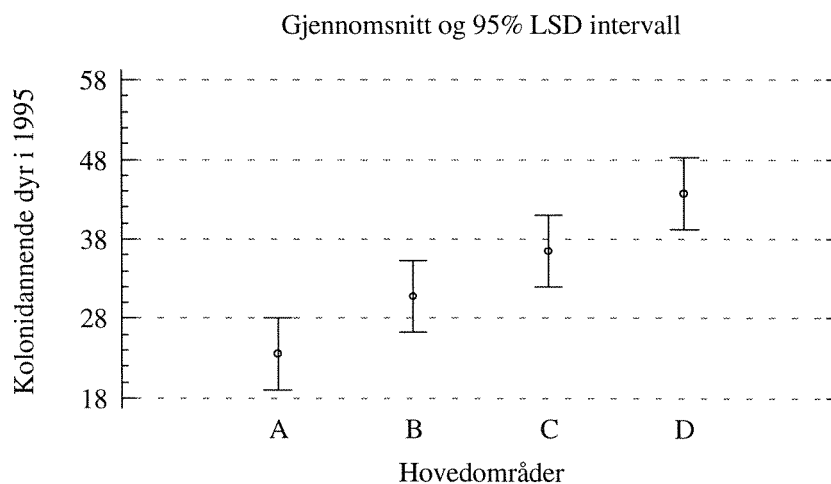
Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
A	4	23.5	X
B	4	30.75	XX
C	4	36.5	XX
D	4	43.75	X

Contrast	Difference	+/- Limits
A - B	-7.25	9.08748
A - C	*-13.0	9.08748
A - D	*-20.25	9.08748
B - C	-5.75	9.08748
B - D	*-13.0	9.08748
C - D	-7.25	9.08748

\* denotes a statistically significant difference.



## ANOVA Table for Kolonidane by St

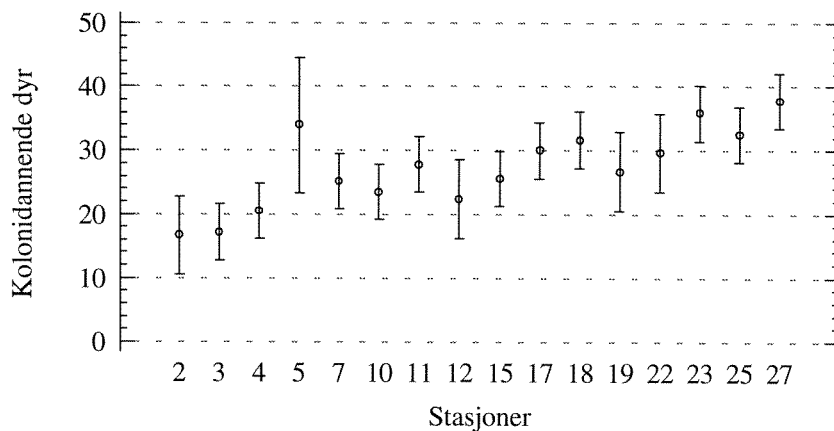
Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	2926.87	15	195.125	3.43	0.0003
Within groups	3584.17	63	56.8915		
Total (Corr.)	6511.04	78			

## Multiple Range Tests for Kolonidane by St

Method: 95.0 percent LSD

St	Count	Mean	Homogeneous Groups
2	3	16.6667	XX
3	6	17.1667	X
4	6	20.5	XXX
12	3	22.3333	XXXXXX
10	6	23.5	XXXX
7	6	25.1667	XXXXXX
15	6	25.5	XXXXXX
19	3	26.6667	XXXXXXX
11	6	27.8333	XXXX
22	3	29.6667	XXXXXX
17	6	30.0	XXXX
18	6	31.6667	XXXX
25	6	32.5	XXX
5	1	34.0	XXXXXXXX
23	6	35.8333	XX
27	6	37.8333	X

Gjennomsnitt og 95% LSD intervall



## ANOVA Table for Kolonidane by Year

## Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	2390.71	5	478.142	8.47	0.0000
Within groups	4120.33	73	56.4429		
Total (Corr.)	6511.04	78			

## Multiple Range Tests for Kolonidane by Year

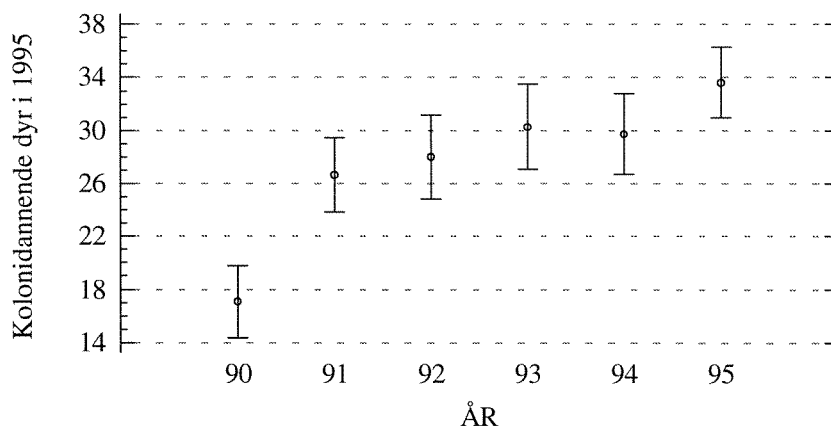
Method: 95.0 percent LSD

Year	Count	Mean	Homogeneous Groups
90	15	17.0667	X
91	14	26.6429	X
92	11	28.0	XX
94	12	29.75	XX
93	11	30.2727	XX
95	16	33.625	X

Contrast	Difference	+/- Limits
90 - 91	*-9.57619	5.56418
90 - 92	*-10.9333	5.9437
90 - 93	*-13.2061	5.9437
90 - 94	*-12.6833	5.79906
90 - 95	*-16.5583	5.3813
91 - 92	-1.35714	6.03284
91 - 93	-3.62987	6.03284
91 - 94	-3.10714	5.89039
91 - 95	*-6.98214	5.4796
92 - 93	-2.27273	6.38456
92 - 94	-1.75	6.25013
92 - 95	-5.625	5.86459
93 - 94	0.522727	6.25013
93 - 95	-3.35227	5.86459
94 - 95	-3.875	5.71795

\* denotes a statistically significant difference.

Gjennomsnitt og 95% LSD intervall



## ANOVA Table for Sol by Area

## Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	820.17	3	273.39	6.12	0.0009
Within groups	3352.44	75	44.6992		
Total (Corr.)	4172.61	78			

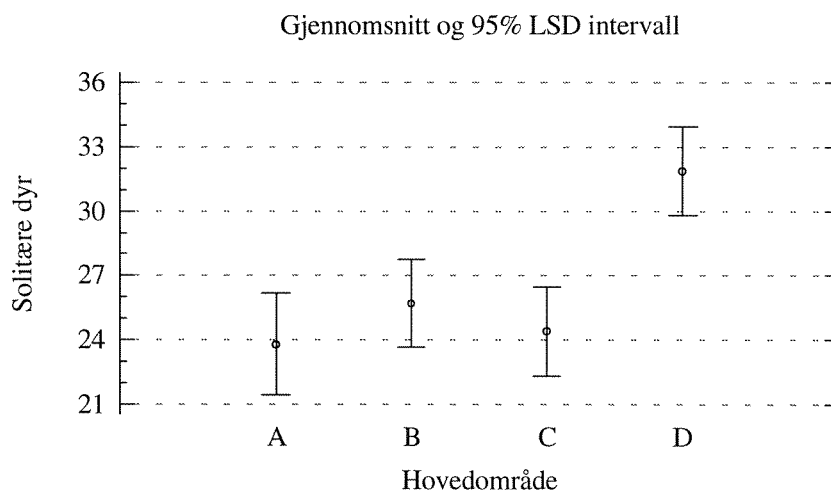
## Multiple Range Tests for Sol by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
A	16	23.8125	X
C	21	24.4286	X
B	21	25.7143	X
D	21	31.8571	X

Contrast	Difference	+/- Limits
A - B	-1.90179	4.41971
A - C	-0.616071	4.41971
A - D	*-8.04464	4.41971
B - C	1.28571	4.11024
B - D	*-6.14286	4.11024
C - D	*-7.42857	4.11024

\* denotes a statistically significant difference.





## ANOVA Table for Sol by Area (1995)

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	198.187	3	66.0625	6.13	0.0090
Within groups	129.25	12	10.7708		
Total (Corr.)	327.437	15			

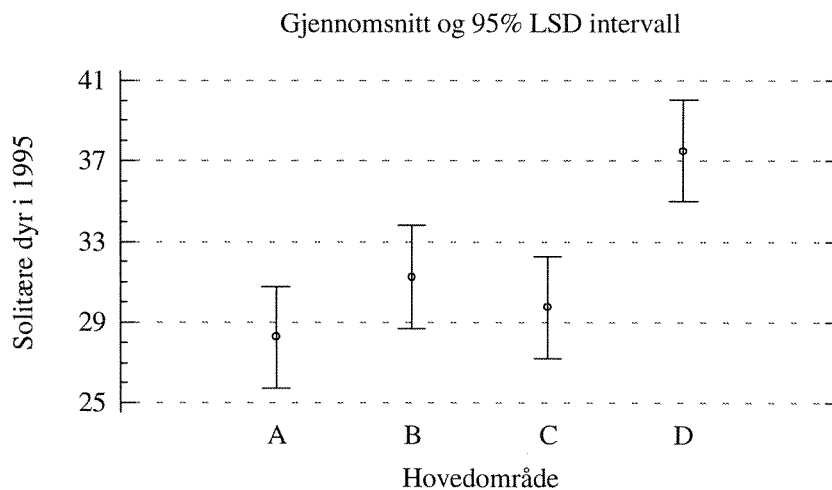
## Multiple Range Tests for Sol by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
A	4	28.25	X
C	4	29.75	X
B	4	31.25	X
D	4	37.5	X

Contrast	Difference	+/- Limits
A - B	-3.0	5.05627
A - C	-1.5	5.05627
A - D	*-9.25	5.05627
B - C	1.5	5.05627
B - D	*-6.25	5.05627
C - D	*-7.75	5.05627

\* denotes a statistically significant difference.

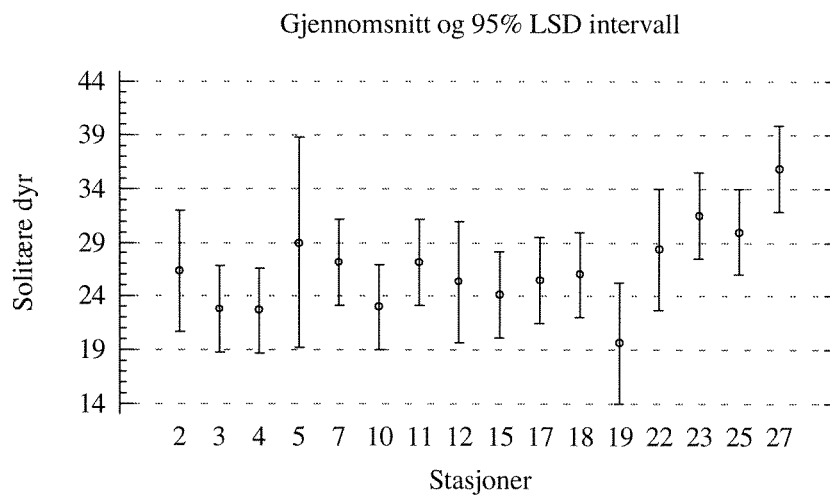


## ANOVA Table for Sol by St

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1193.44	15	79.5627	1.68	0.0778
Within groups	2979.17	63	47.2884		
Total (Corr.)	4172.61	78			

## The StatAdvisor

The ANOVA table decomposes the variance of Sol into two components: a between-group component and a within-group component. The F-ratio, which in this case equals 1.6825, is a ratio of the between-group estimate to the within-group estimate. Since the P-value of the F-test is greater than or equal to 0.05, there is not a statistically significant difference between the mean Sol from one level of St to another at the 95.0% confidence level.



## ANOVA Table for Sol by Year

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1733.79	5	346.757	10.38	0.0000
Within groups	2438.82	73	33.4085		
Total (Corr.)	4172.61	78			

## Multiple Range Tests for Sol by Year

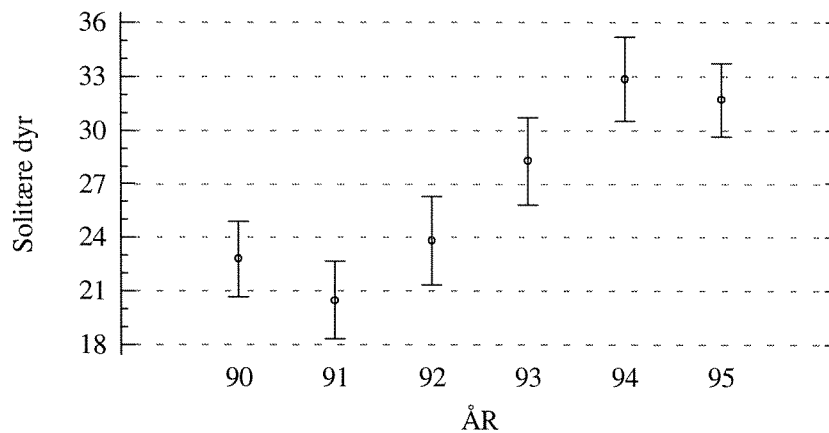
Method: 95.0 percent LSD

Year	Count	Mean	Homogeneous Groups
91	14	20.5	X
90	15	22.8	X
92	11	23.8182	XX
93	11	28.2727	XX
95	16	31.6875	X
94	12	32.8333	X

Contrast	Difference	+/- Limits
90 - 91	2.3	4.28081
90 - 92	-1.01818	4.57279
90 - 93	*-5.47273	4.57279
90 - 94	*-10.0333	4.46151
90 - 95	*-8.8875	4.14011
91 - 92	-3.31818	4.64137
91 - 93	*-7.77273	4.64137
91 - 94	*-12.3333	4.53177
91 - 95	*-11.1875	4.21573
92 - 93	-4.45455	4.91196
92 - 94	*-9.01515	4.80854
92 - 95	*-7.86932	4.51192
93 - 94	-4.56061	4.80854
93 - 95	-3.41477	4.51192
94 - 95	1.14583	4.39911

\* denotes a statistically significant difference.

Gjennomsnitt og 95% LSD intervall



## ANOVA Table for KolSol by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1.28048	3	0.426825	5.95	.0011
Within groups	5.37981	75	0.0717308		
Total (Corr.)	6.66029	78			

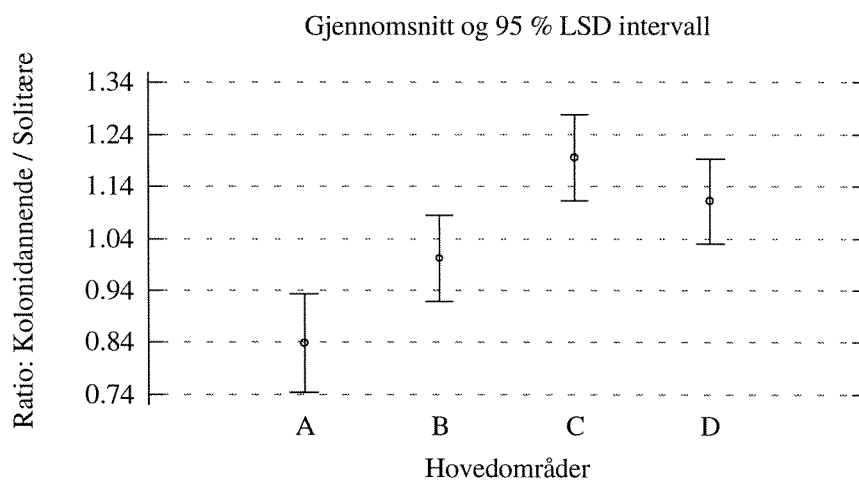
## Multiple Range Tests for KolSol by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
A	16	0.839453	X
B	21	1.00171	XX
D	21	1.11171	XX
C	21	1.19512	X

Contrast	Difference	+/- Limits
A - B	-0.162258	0.17705
A - C	*-0.35567	0.17705
A - D	*-0.272257	0.17705
B - C	*-0.193412	0.164653
B - D	-0.109999	0.164653
C - D	0.0834135	0.164653

\* denotes a statistically significant difference.



## ANOVA Table for KolSol by Area (1995)

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	0.409946	3	0.136649	4.37	0.0268
Within groups	0.374992	12	0.0312494		
Total (Corr.)	0.784939	15			

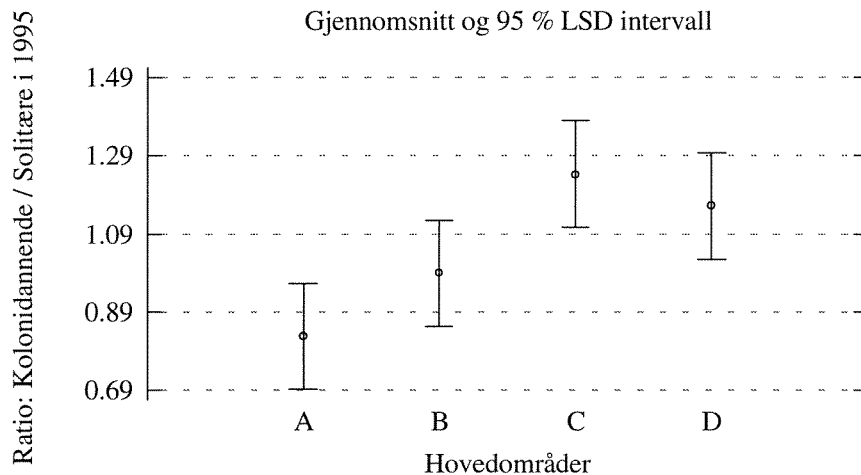
## Multiple Range Tests for KolSol by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
A	4	0.827381	X
B	4	0.989471	XX
D	4	1.16093	X
C	4	1.24251	X

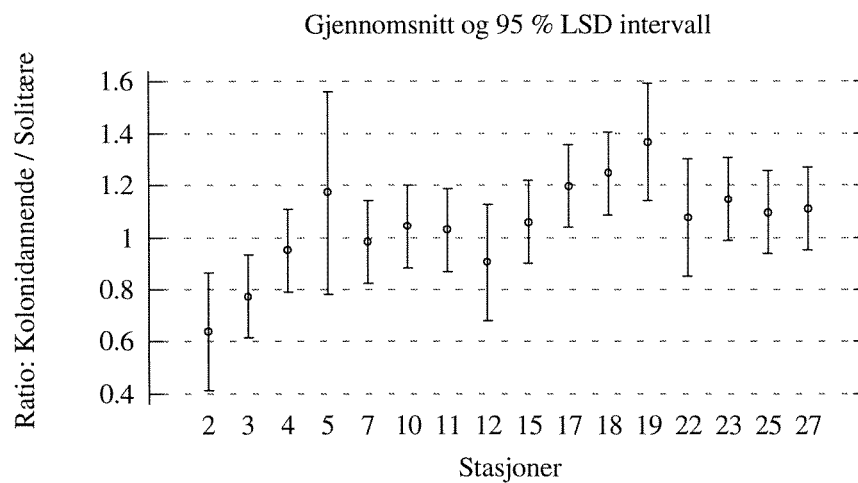
Contrast	Difference	+/- Limits
A - B	-0.16209	0.272349
A - C	*-0.415133	0.272349
A - D	*-0.333547	0.272349
B - C	-0.253043	0.272349
B - D	-0.171457	0.272349
C - D	0.0815858	0.272349

\* denotes a statistically significant difference.



## ANOVA Table for KolSol by St

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1.88458	15	0.125639	1.66	0.0839
Within groups	4.7757	63	0.0758048		
Total (Corr.)	6.66029	78			



## ANOVA Table for KolSol by Year

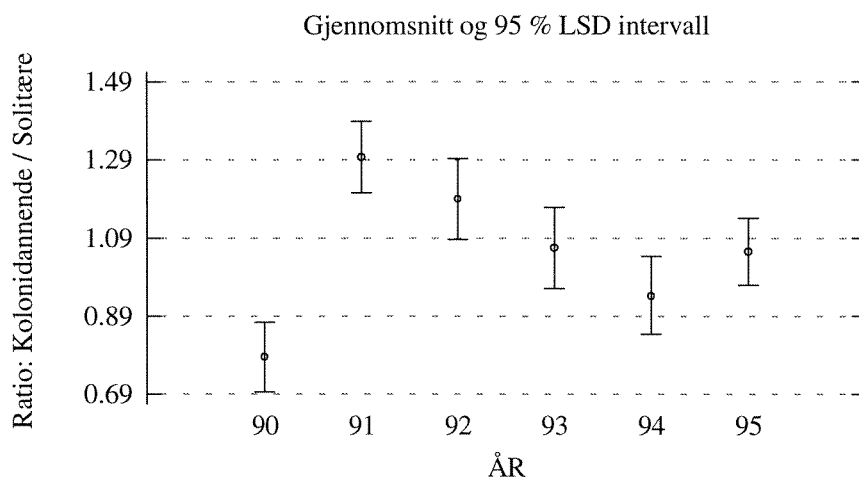
Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	2.28147	5	0.456295	7.61	0.0000
Within groups	4.37881	73	0.0599837		
Total (Corr.)	6.66029	78			

## Multiple Range Tests for KolSol by Year

Method: 95.0 percent LSD			
Year	Count	Mean	Homogeneous Groups
90	15	0.78401	X
94	12	0.941474	XX
95	16	1.05507	XX
93	11	1.06507	XX
92	11	1.18901	XX
91	14	1.29834	X

Contrast	Difference	+/- Limits
90 - 91	*-0.51433	0.18139
90 - 92	*-0.405004	0.193762
90 - 93	*-0.281059	0.193762
90 - 94	-0.157464	0.189047
90 - 95	*-0.271063	0.175428
91 - 92	0.109326	0.196668
91 - 93	*0.233271	0.196668
91 - 94	*0.356866	0.192024
91 - 95	*0.243267	0.178633
92 - 93	0.123945	0.208134
92 - 94	*0.247539	0.203752
92 - 95	0.13394	0.191183
93 - 94	0.123595	0.203752
93 - 95	0.00999571	0.191183
94 - 95	-0.113599	0.186403

\* denotes a statistically significant difference.



## ANOVA Table for Algeetende by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	129.956	3	43.3186	19.97	0.0000
Within groups	162.652	75	2.16869		
Total (Corr.)	292.608	78			

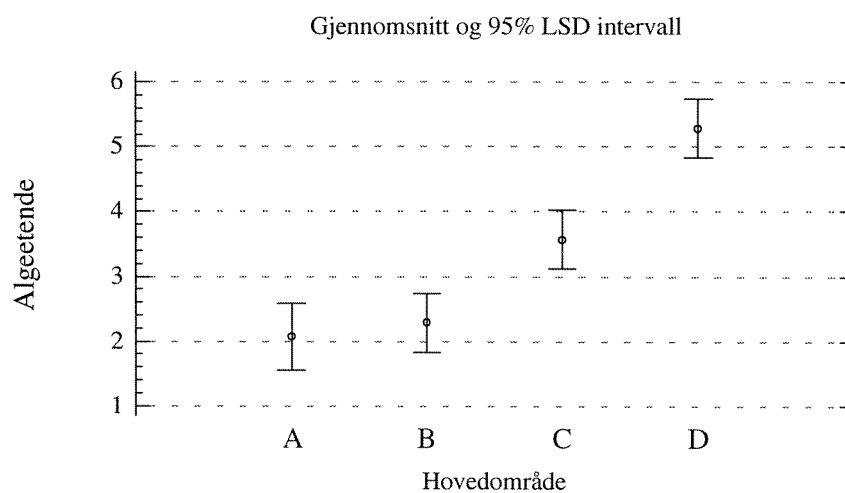
## Multiple Range Tests for Algeetende by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
A	16	2.0625	X
B	21	2.28571	X
C	21	3.57143	X
D	21	5.28571	X

Contrast	Difference	+/- Limits
A - B	-0.223214	0.973515
A - C	*-1.50893	0.973515
A - D	*-3.22321	0.973515
B - C	*-1.28571	0.90535
B - D	*-3.0	0.90535
C - D	*-1.71429	0.90535

\* denotes a statistically significant difference.





## ANOVA Table for Algeetende by Area (1995)

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	19.25	3	6.41667	6.16	0.0089
Within groups	12.5	12	1.04167		
Total (Corr.)	31.75	15			

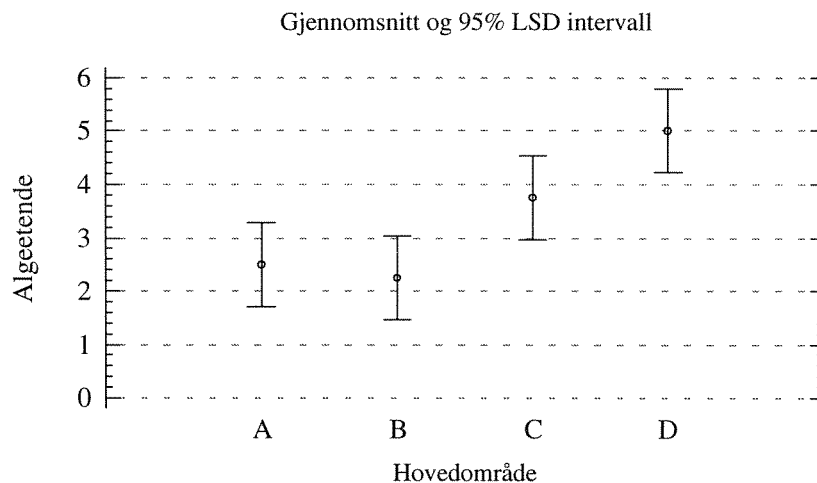
## Multiple Range Tests for Algeetende by Area (1995)

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
B	4	2.25	X
A	4	2.5	X
C	4	3.75	XX
D	4	5.0	X

Contrast	Difference	+/- Limits
A - B	0.25	1.57243
A - C	-1.25	1.57243
A - D	*-2.5	1.57243
B - C	-1.5	1.57243
B - D	*-2.75	1.57243
C - D	-1.25	1.57243

\* denotes a statistically significant difference.



## ANOVA Table for Algeetende by St

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	145.274	15	9.68495	4.14	0.0000
Within groups	147.333	63	2.33862		
Total (Corr.)	292.608	78			

## Multiple Range Tests for Algeetende by St

Method: 95.0 percent LSD

St	Count	Mean	Homogeneous Groups
4	6	1.5	X
3	6	1.83333	XX
7	6	2.0	XXX
11	6	2.16667	XXX
10	6	2.5	XXXX
12	3	2.66667	XXXXX
5	1	3.0	XXXXXXXX
17	6	3.16667	XXXXX
18	6	3.33333	XXXX
2	3	3.33333	XXXXXXXX
19	3	4.0	XXXXX
15	6	4.0	XXX
22	3	4.66667	XXX
25	6	5.16667	XX
23	6	5.16667	XX
27	6	5.83333	X

## ANOVA Table for Algeetende by Year

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	58.0199	5	11.604	3.61	0.0057
Within groups	234.588	73	3.21353		
Total (Corr.)	292.608	78			

## Multiple Range Tests for Algeetende by Year

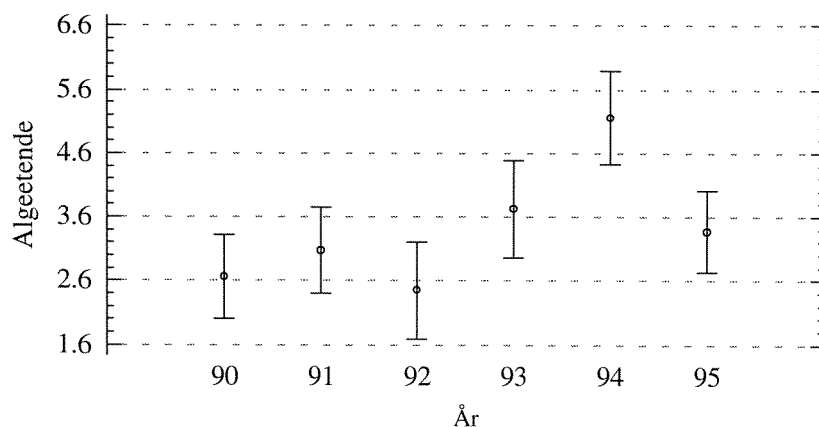
Method: 95.0 percent LSD

Year	Count	Mean	Homogeneous Groups
92	11	2.45455	X
90	15	2.66667	X
91	14	3.07143	X
95	16	3.375	X
93	11	3.72727	XX
94	12	5.16667	X

Contrast	Difference	+/- Limits
90 - 91	-0.404762	1.32766
90 - 92	0.212121	1.41822
90 - 93	-1.06061	1.41822
90 - 94	*-2.5	1.38371
90 - 95	-0.708333	1.28403
91 - 92	0.616883	1.43949
91 - 93	-0.655844	1.43949
91 - 94	*-2.09524	1.4055
91 - 95	-0.303571	1.30748
92 - 93	-1.27273	1.52341
92 - 94	*-2.71212	1.49134
92 - 95	-0.920455	1.39934
93 - 94	-1.43939	1.49134
93 - 95	0.352273	1.39934
94 - 95	*1.79167	1.36435

\* denotes a statistically significant difference.

Gjennomsnitt og 95% LSD intervall



## ANOVA Table for Filtereten by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1752.08	3	584.028	5.29	0.0023
Within groups	8277.46	75	110.366		
Total (Corr.)	10029.5	78			

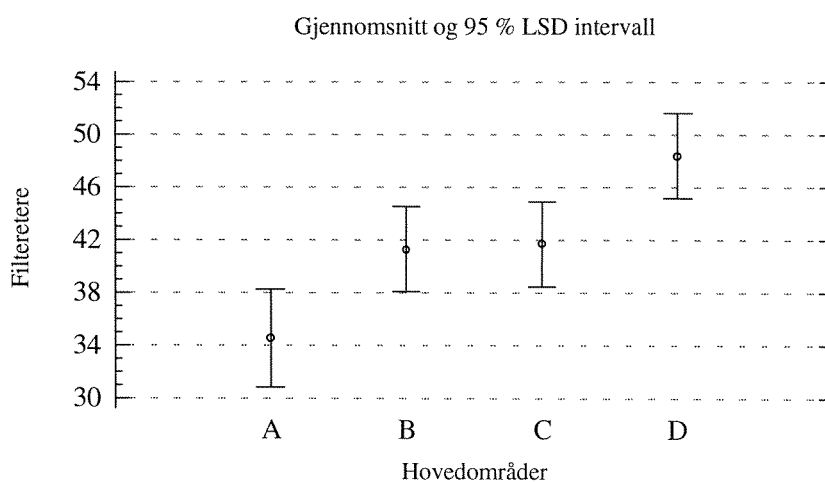
## Multiple Range Tests for Filtereten by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
A	16	34.5625	X
B	21	41.2857	XX
C	21	41.7143	X
D	21	48.381	X

Contrast	Difference	+/- Limits
A - B	-6.72321	6.94483
A - C	*-7.15179	6.94483
A - D	*-13.8185	6.94483
B - C	-0.428571	6.45856
B - D	*-7.09524	6.45856
C - D	*-6.66667	6.45856

\* denotes a statistically significant difference.



## ANOVA Table for Filtereten by Area (1995)

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	774.75	3	258.25	3.77	0.0406
Within groups	821.0	12	68.4167		
Total (Corr.)	1595.75	15			

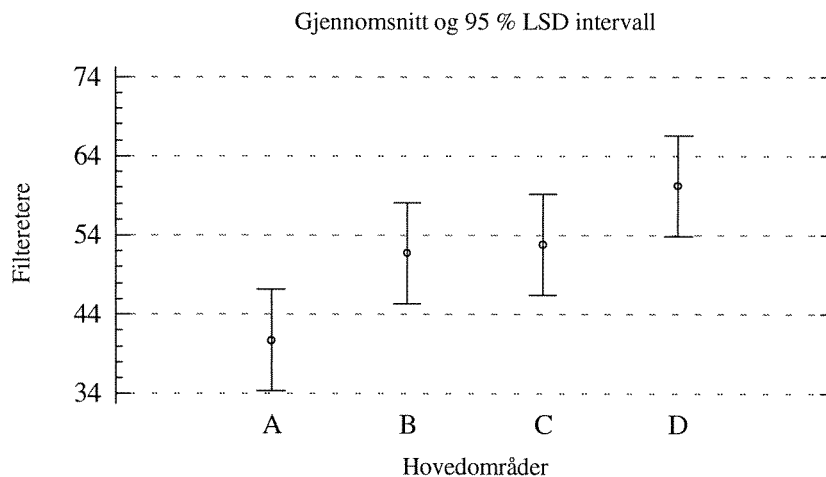
## Multiple Range Tests for Filtereten by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
A	4	40.75	X
B	4	51.75	XX
C	4	52.75	XX
D	4	60.25	X

Contrast	Difference	+/- Limits
A - B	-11.0	12.7434
A - C	-12.0	12.7434
A - D	*-19.5	12.7434
B - C	-1.0	12.7434
B - D	-8.5	12.7434
C - D	-7.5	12.7434

\* denotes a statistically significant difference.



**ANOVA Table for Filterreten by St**

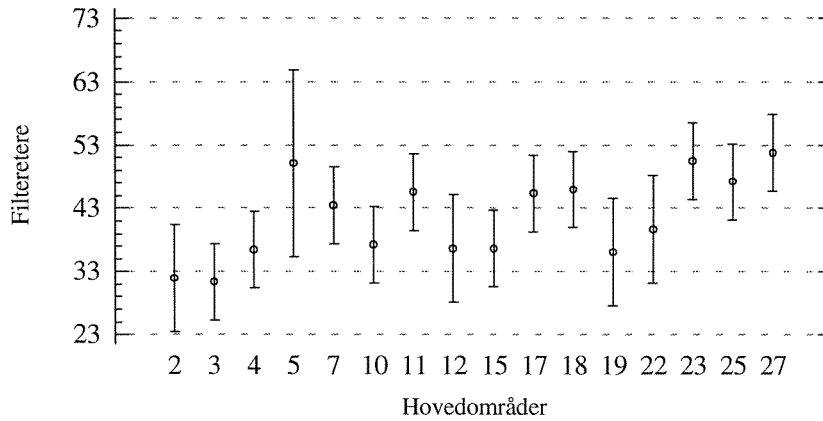
Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	3171.71	15	211.447	1.94	0.0351
Within groups	6857.83	63	108.854		
Total (Corr.)	10029.5	78			

Multiple Range Tests for Filterreten by St

Method: 95.0 percent LSD

St	Count	Mean	Homogeneous Groups
3	6	31.3333	X
2	3	32.0	XX
19	3	36.0	XXXX
4	6	36.5	XXX
15	6	36.6667	XXX
12	3	36.6667	XXXX
10	6	37.1667	XXX
22	3	39.6667	XXXXX
7	6	43.5	XXXX
17	6	45.3333	XXXX
11	6	45.5	XXXX
18	6	46.0	XXXX
25	6	47.1667	XXX
5	1	50.0	XXXXX
23	6	50.5	XX
27	6	51.8333	X

Gjennomsnitt og 95 % LSD intervall



## ANOVA Table for Filterreten by Year

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	4831.53	5	966.305	13.57	0.0000
Within groups	5198.02	73	71.2057		
Total (Corr.)	10029.5	78			

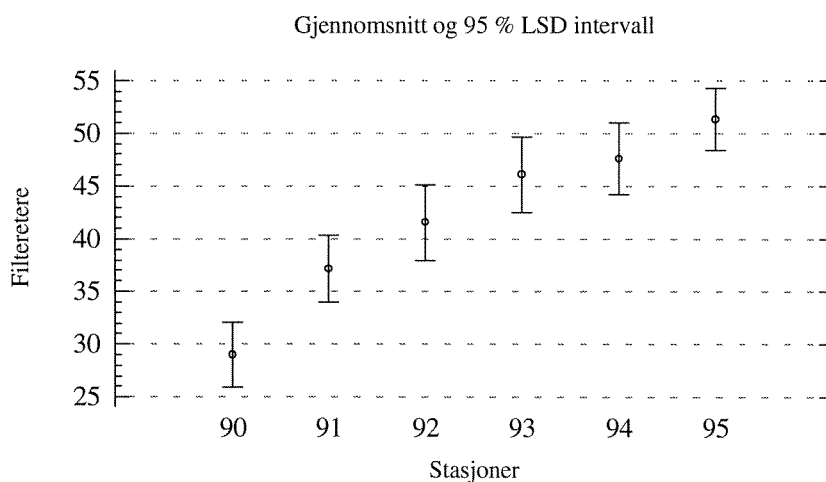
## Multiple Range Tests for Filterreten by Year

Method: 95.0 percent LSD

Year	Count	Mean	Homogeneous Groups
90	15	29.0	X
91	14	37.1429	X
92	11	41.5455	XX
93	11	46.0909	XX
94	12	47.5833	XX
95	16	51.375	X

Contrast	Difference	+/- Limits
90 - 91	*-8.14286	6.24963
90 - 92	*-12.5455	6.6759
90 - 93	*-17.0909	6.6759
90 - 94	*-18.5833	6.51344
90 - 95	*-22.375	6.04422
91 - 92	-4.4026	6.77602
91 - 93	*-8.94805	6.77602
91 - 94	*-10.4405	6.61602
91 - 95	*-14.2321	6.15462
92 - 93	-4.54545	7.17106
92 - 94	-6.03788	7.02008
92 - 95	*-9.82955	6.58704
93 - 94	-1.49242	7.02008
93 - 95	-5.28409	6.58704
94 - 95	-3.79167	6.42234

\* denotes a statistically significant difference.



## ANOVA Table for Rovd by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	450.992	3	150.331	18.06	0.0000
Within groups	624.223	75	8.32298		
Total (Corr.)	1075.22	78			

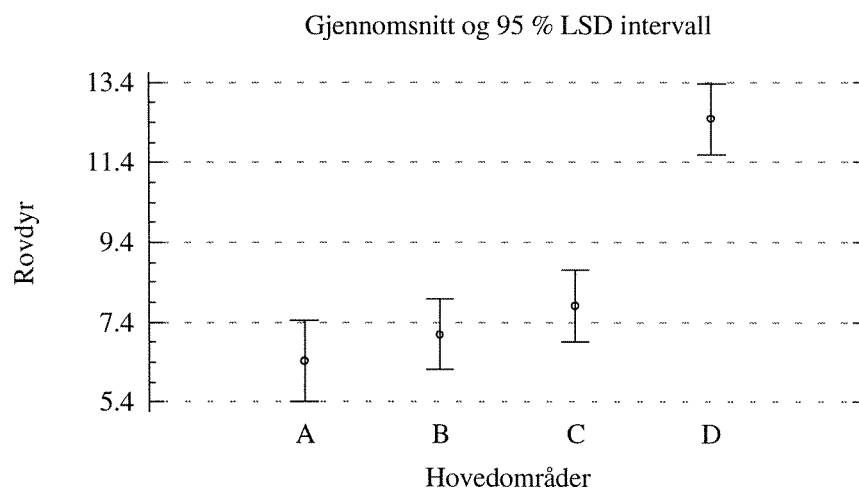
## Multiple Range Tests for Rovd by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
A	16	6.4375	X
B	21	7.09524	X
C	21	7.80952	X
D	21	12.4762	X

Contrast	Difference	+/- Limits
A - B	-0.657738	1.90714
A - C	-1.37202	1.90714
A - D	*-6.03869	1.90714
B - C	-0.714286	1.77361
B - D	*-5.38095	1.77361
C - D	*-4.66667	1.77361

\* denotes a statistically significant difference.





## ANOVA Table for Rovd by Area (1995)

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	148.25	3	49.4167	25.23	0.0000
Within groups	23.5	12	1.95833		
Total (Corr.)	171.75	15			

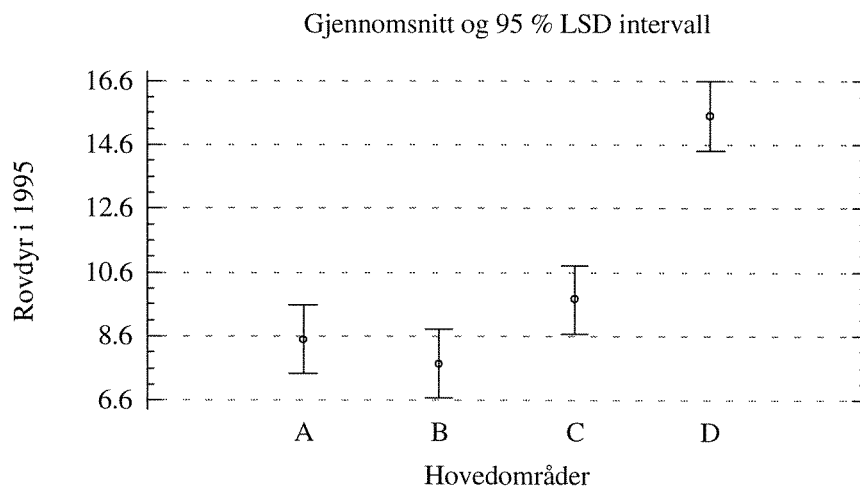
## Multiple Range Tests for Rovd by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
B	4	7.75	X
A	4	8.5	X
C	4	9.75	X
D	4	15.5	X

Contrast	Difference	+/- Limits
A - B	0.75	2.156
A - C	-1.25	2.156
A - D	*-7.0	2.156
B - C	-2.0	2.156
B - D	*-7.75	2.156
C - D	*-5.75	2.156

\* denotes a statistically significant difference.



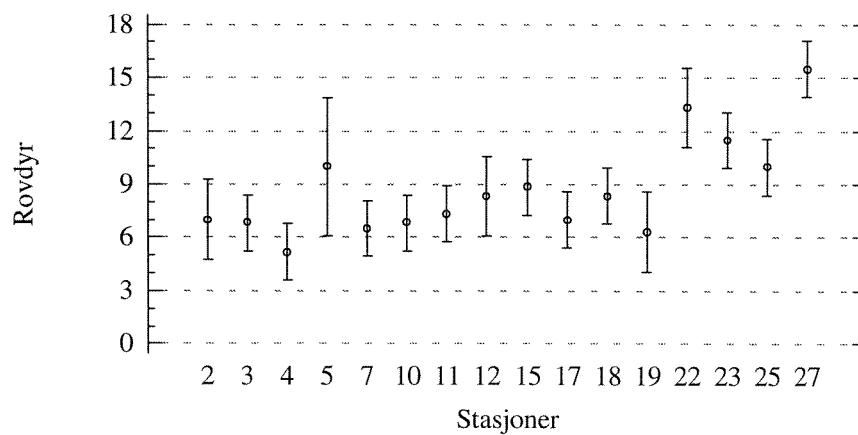
## ANOVA Table for Rovd by St

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	600.715	15	40.0477	5.32	0.0000
Within groups	474.5	63	7.53175		
(Corr.)	1075.22	78			Total

## Multiple Range Tests for Rovd by St

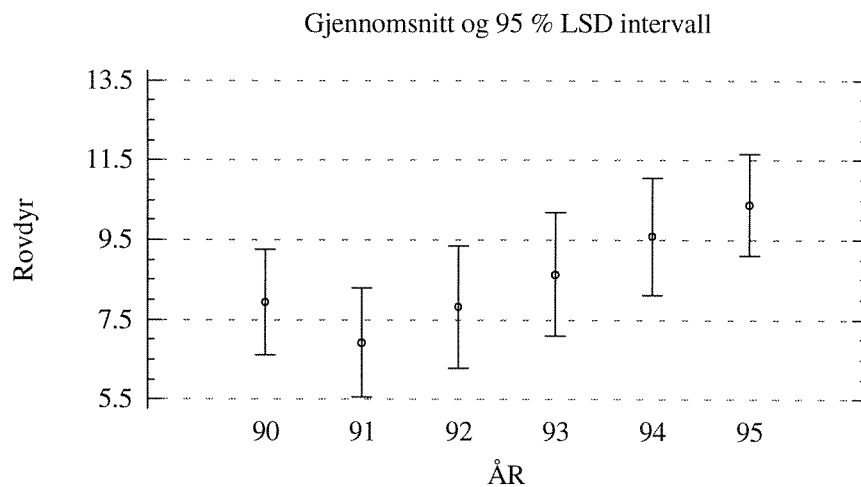
Method: 95.0 percent LSD			
St	Count	Mean	Homogeneous Groups
4	6	5.16667	X
19	3	6.33333	XXX
7	6	6.5	XX
10	6	6.83333	XX
3	6	6.83333	XX
17	6	7.0	XXX
2	3	7.0	XXX
11	6	7.33333	XXX
18	6	8.33333	XX
12	3	8.33333	XXXX
15	6	8.83333	XXX
25	6	10.0	XXX
5	1	10.0	XXXXXXXX
23	6	11.5	XX
22	3	13.3333	XX
27	6	15.5	X

Gjennomsnitt og 95 % LSD intervall



## ANOVA Table for Rovdyr by Year

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	114.505	5	22.901	1.74	0.1362
Within groups	960.71	73	13.1604		
Total (Corr.)	1075.22	78			



## ANOVA Table for Forekomst by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	8.01476E6	3	2.67159E6	8.12	0.0001
Within groups	2.4662E7	75	328827.0		
Total (Corr.)	3.26768E7	78			

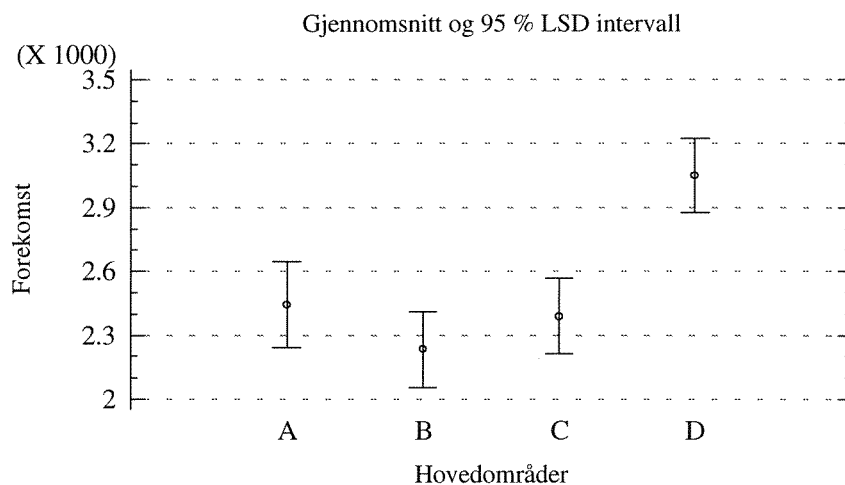
## Multiple Range Tests for Forekomst by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
B	21	2235.68	X
C	21	2390.67	X
A	16	2445.74	X
D	21	3049.94	X

Contrast	Difference	+/- Limits
A - B	210.067	379.077
A - C	55.0737	379.077
A - D	*-604.196	379.077
B - C	-154.993	352.535
B - D	*-814.263	352.535
C - D	*-659.27	352.535

\* denotes a statistically significant difference.



## ANOVA Table for Forekomst by Area (1995)

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	3.46302E6	3	1.15434E6	5.22	0.0154
Within groups	2.65123E6	12	220936.0		
Total (Corr.)	6.11425E6	15			

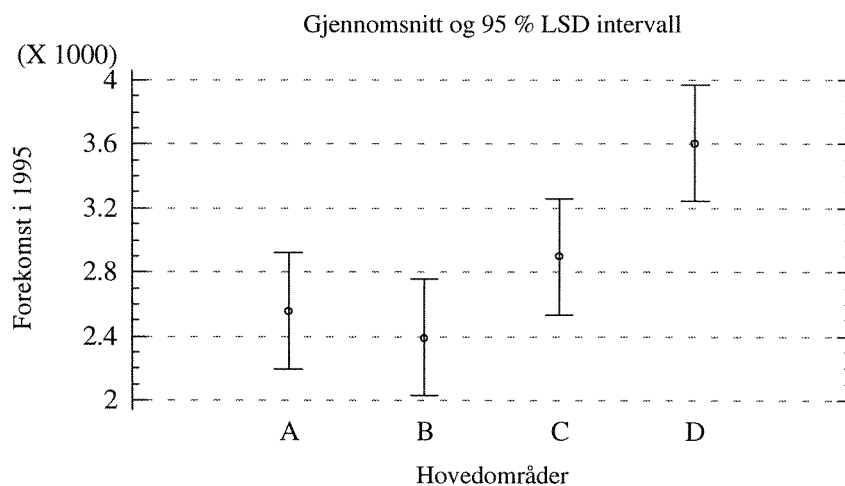
## Multiple Range Tests for Forekomst by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
B	4	2393.76	X
A	4	2556.61	X
C	4	2896.79	XX
D	4	3604.99	X

Contrast	Difference	+/- Limits
A - B	162.854	724.167
A - C	-340.177	724.167
A - D	*-1048.38	724.167
B - C	-503.031	724.167
B - D	*-1211.23	724.167
C - D	-708.204	724.167

\* denotes a statistically significant difference.



## ANOVA Table for Forekomst by St

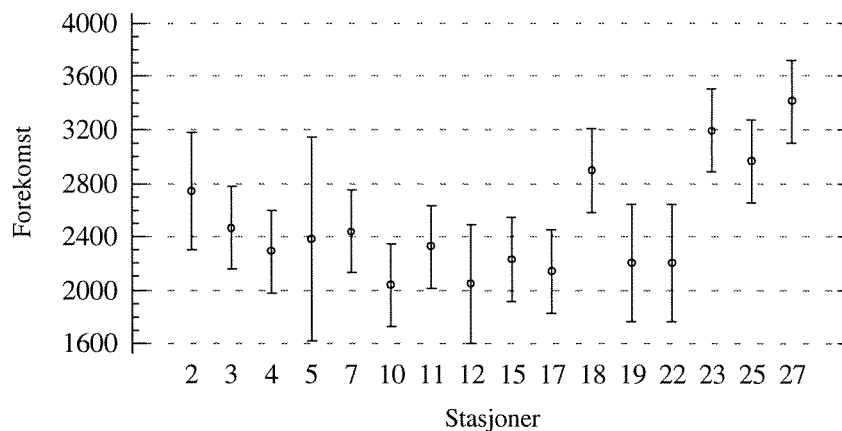
Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1.43214E7	15	954761.0	3.28	0.0005
Within groups	1.83554E7	63	291355.0		
Total (Corr.)	3.26768E7	78			

## Multiple Range Tests for Forekomst by St

Method: 95.0 percent LSD

St	Count	Mean	Homogeneous Groups
10	6	2038.83	X
12	3	2045.81	X
17	6	2140.65	X
19	3	2201.14	XXX
22	3	2206.37	XXX
15	6	2230.76	X
4	6	2290.68	XX
11	6	2324.23	XX
5	1	2381.55	XXXX
7	6	2438.9	XXX
3	6	2464.79	XXX
2	3	2739.16	XXXX
18	6	2895.37	XXX
25	6	2963.41	XX
23	6	3195.0	X
27	6	3413.19	X

Gjennomsnitt og 95 % LSD intervall



## ANOVA Table for Forekomst by Year

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	9.78793E6	5	1.95759E6	6.24	0.0001
Within groups	2.28889E7	73	313546.0		
Total (Corr.)	3.26768E7	78			

## Multiple Range Tests for Forekomst by Year

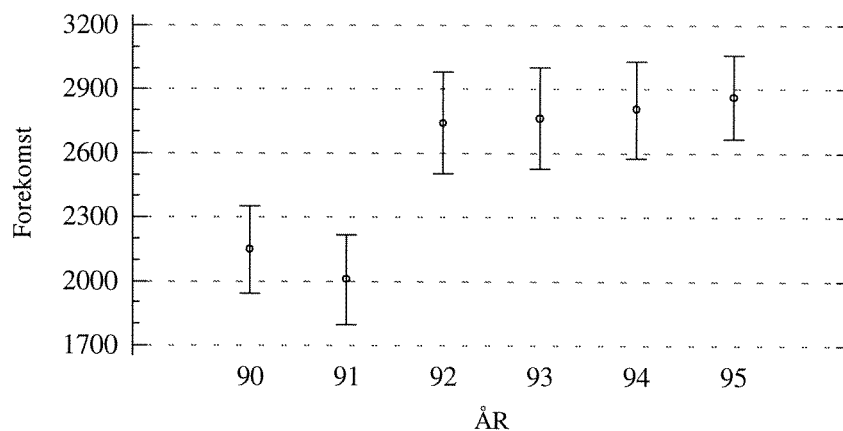
Method: 95.0 percent LSD

Year	Count	Mean	Homogeneous Groups
91	14	2007.0	X
90	15	2147.9	X
92	11	2740.7	X
93	11	2763.85	X
94	12	2804.89	X
95	16	2863.04	X

Contrast	Difference	+/- Limits
90 - 91	140.905	414.713
90 - 92	*-592.793	442.999
90 - 93	*-615.947	442.999
90 - 94	*-656.985	432.219
90 - 95	*-715.134	401.082
91 - 92	*-733.698	449.643
91 - 93	*-756.852	449.643
91 - 94	*-797.89	439.026
91 - 95	*-856.039	408.409
92 - 93	-23.1533	475.858
92 - 94	-64.192	465.838
92 - 95	-122.34	437.103
93 - 94	-41.0386	465.838
93 - 95	-99.1869	437.103
94 - 95	-58.1483	426.174

\* denotes a statistically significant difference.

Gjennomsnitt og 95 % LSD intervall



## ANOVA Table for Domindx by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	742.919	3	247.64	7.89	0.0001
Within groups	2354.99	75	31.3999		
Total (Corr.)	3097.91	78			

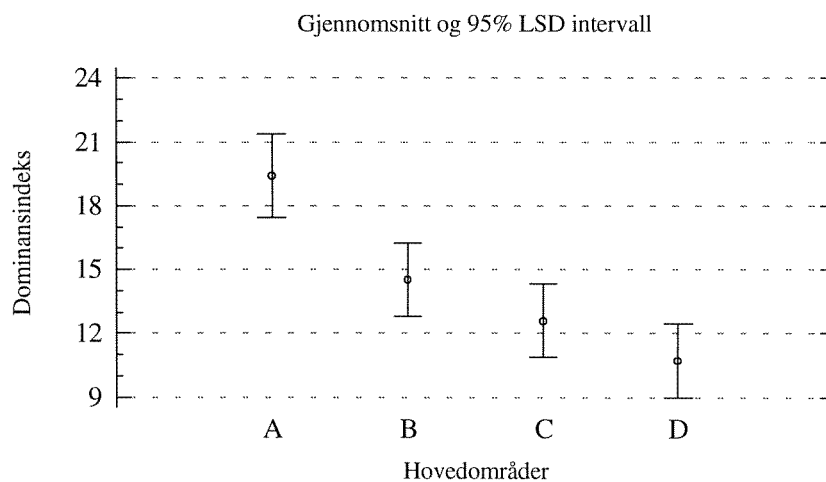
## Multiple Range Tests for Domindx by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
D	21	10.7237	X
C	21	12.6038	XX
B	21	14.5038	X
A	16	19.427	X

Contrast	Difference	+/- Limits
A - B	*4.92318	3.70432
A - C	*6.82325	3.70432
A - D	*8.7033	3.70432
B - C	1.90006	3.44494
B - D	*3.78012	3.44494
C - D	1.88006	3.44494

\* denotes a statistically significant difference.





## ANOVA Table for Domindx by Area (1995)

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	170.904	3	56.9681	4.32	0.0278
Within groups	158.28	12	13.19		
Total (Corr.)	329.185	15			

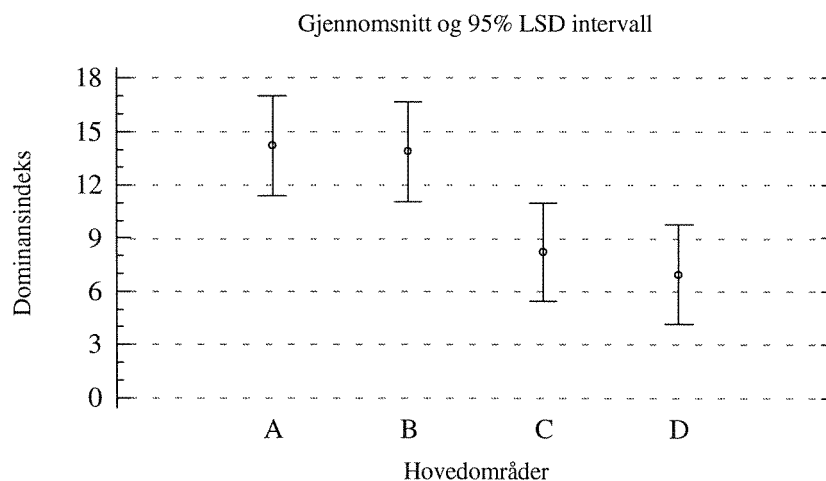
## Multiple Range Tests for Domindx by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
D	4	6.95485	X
C	4	8.21675	X
B	4	13.8842	X
A	4	14.2289	X

Contrast	Difference	+/- Limits
A - B	0.344623	5.59537
A - C	*6.0121	5.59537
A - D	*7.274	5.59537
B - C	*5.66748	5.59537
B - D	*6.92938	5.59537
C - D	1.2619	5.59537

\* denotes a statistically significant difference.



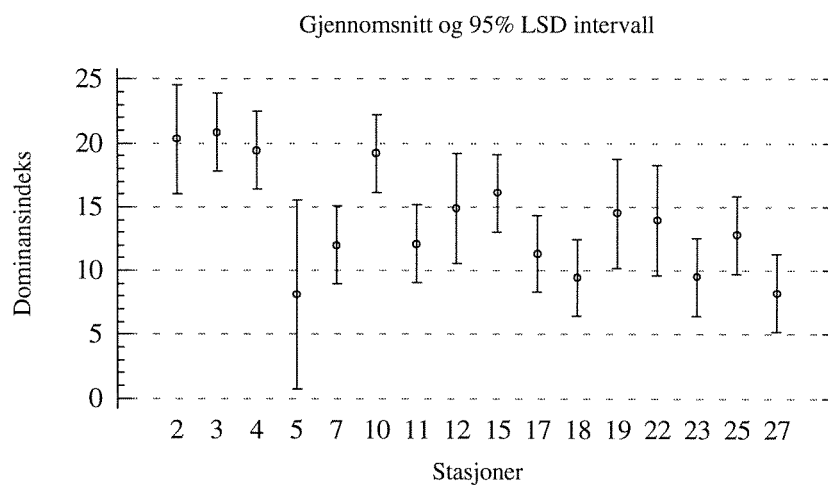
## ANOVA Table for Domindx by St

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	1346.35	15	89.7566	3.23	0.0006
Within groups	1751.56	63	27.8026		
Total (Corr.)	3097.91	78			

## Multiple Range Tests for Domindx by St

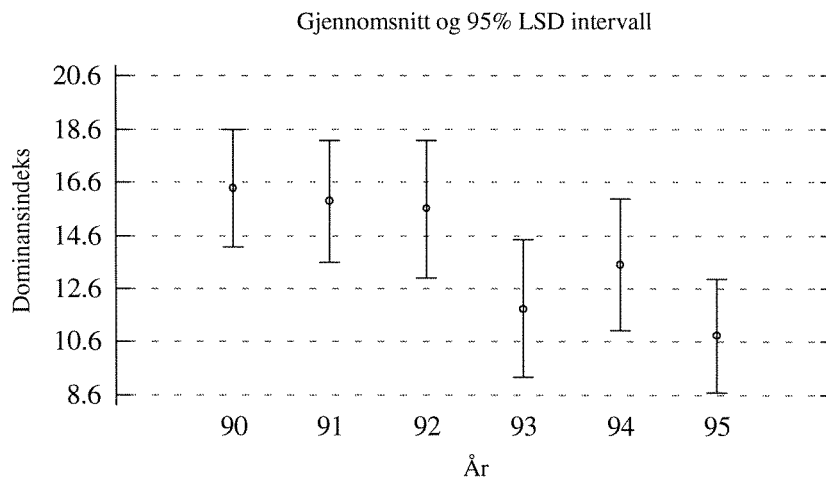
Method: 95.0 percent LSD

St	Count	Mean	Homogeneous Groups
5	1	8.12028	XXX
27	6	8.25503	X
18	6	9.43553	X
23	6	9.50648	X
17	6	11.3325	XX
7	6	12.0103	XX
11	6	12.1075	XX
25	6	12.7991	XX
22	3	13.9446	XXXX
19	3	14.4907	XXXX
12	3	14.8813	XXXX
15	6	16.0998	XXX
10	6	19.2049	XX
4	6	19.4503	XX
2	3	20.3082	X
3	6	20.8475	X



## ANOVA Table for Domindx by Year

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	378.338	5	75.6677	2.03	0.0842
Within groups	2719.57	73	37.2544		
Total (Corr.)	3097.91	78			



## ANOVA Table for Diversitet by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	3.54155	3	1.18052	10.44	0.0000
Within groups	8.48333	75	0.113111		
Total (Corr.)	12.0249	78			

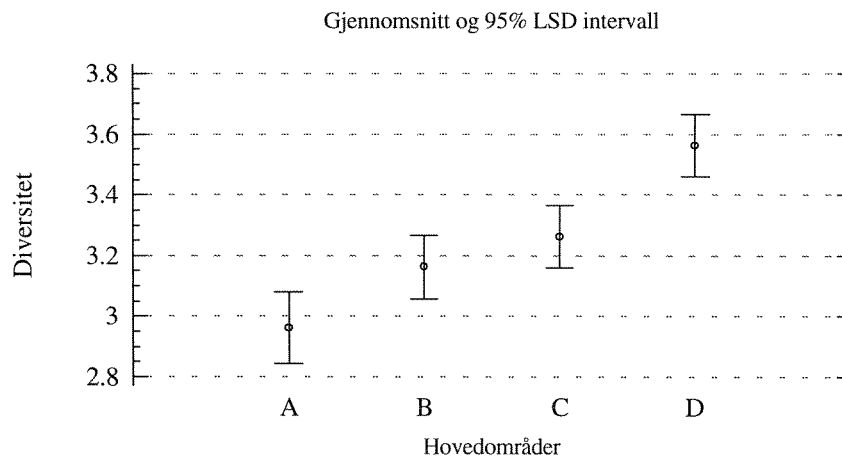
## Multiple Range Tests for Diversitet by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
A	16	2.9618	X
B	21	3.16155	XX
C	21	3.26181	X
D	21	3.5622	X

Contrast	Difference	+/- Limits
A - B	-0.199752	0.222329
A - C	*-0.300006	0.222329
A - D	*-0.600398	0.222329
B - C	-0.100254	0.206762
B - D	*-0.400646	0.206762
C - D	*-0.300392	0.206762

\* denotes a statistically significant difference.



## ANOVA Table for Diversitet by Area (1995)

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	0.720616	3	0.240205	7.67	0.0040
Within groups	0.375855	12	0.0313213		
Total (Corr.)	1.09647	15			

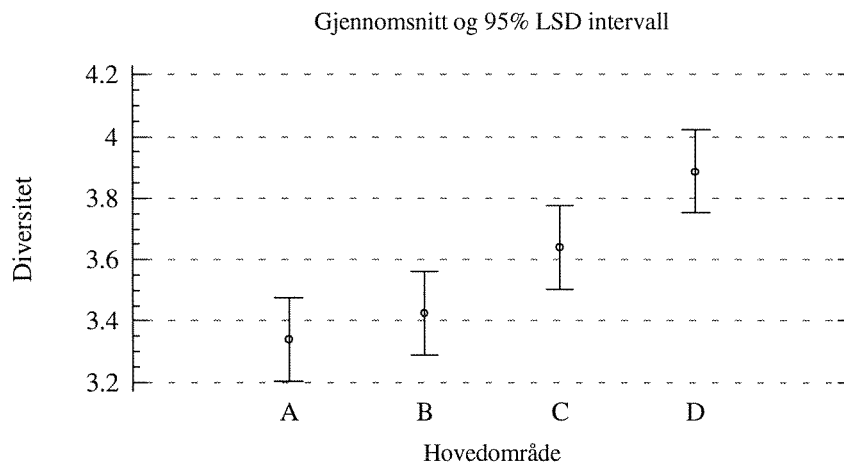
## Multiple Range Tests for Diversitet by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
A	4	3.33894	X
B	4	3.42402	XX
C	4	3.64013	XX
D	4	3.88711	X

Contrast	Difference	+/- Limits
A - B	-0.0850799	0.272663
A - C	*-0.301196	0.272663
A - D	*-0.548175	0.272663
B - C	-0.216117	0.272663
B - D	*-0.463095	0.272663
C - D	-0.246979	0.272663

\* denotes a statistically significant difference.



## ANOVA Table for Diversitet by St

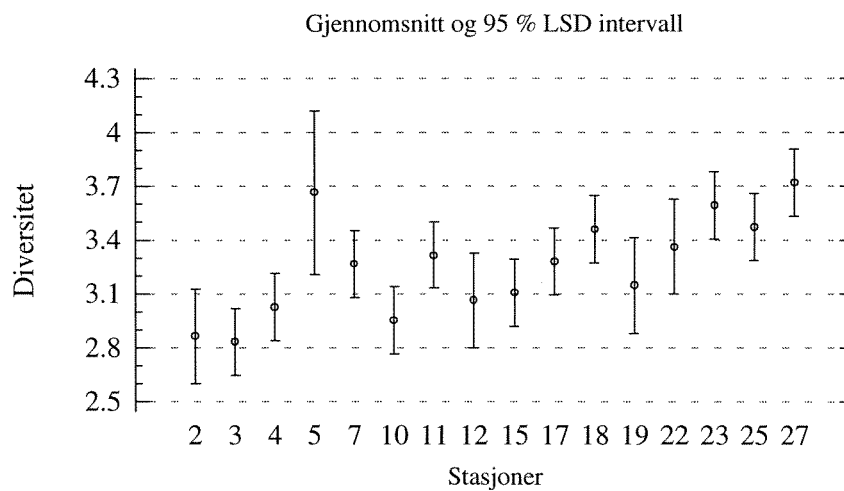
Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	5.44233	15	0.362822	3.47	0.0003
Within groups	6.58256	63	0.104485		
Total (Corr.)	12.0249	78			

## Multiple Range Tests for Diversitet by St

-----Method:

95.0 percent LSD

St	Count	Mean	Homogeneous Groups
3	6	2.83085	X
2	3	2.86339	XX
10	6	2.95137	XX
4	6	3.0249	XXX
12	3	3.06496	XXXX
15	6	3.10451	XXXX
19	3	3.14649	XXXXX
7	6	3.26504	XXXX
17	6	3.28036	XXXX
11	6	3.31656	XXXX
22	3	3.36087	XXXXXX
18	6	3.45822	XXX
25	6	3.47323	XXX
23	6	3.59161	XX
5	1	3.66414	XXXX
27	6	3.72242	X



## ANOVA Table for Diversitet by Year

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	4.13793	5	0.827587	7.66	0.0000
Within groups	7.88695	73	0.10804		
Total (Corr.)	12.0249	78			

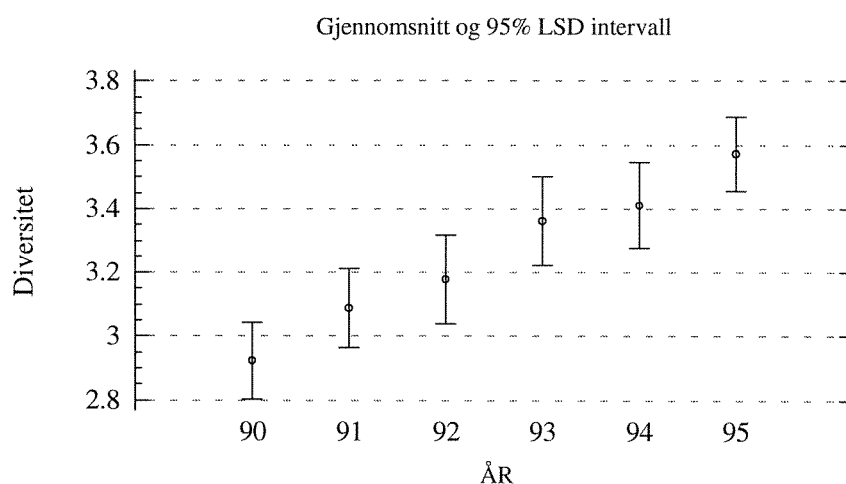
## Multiple Range Tests for Diversitet by Year

Method: 95.0 percent LSD

Year	Count	Mean	Homogeneous Groups
90	15	2.92281	X
91	14	3.08843	X
92	11	3.17703	XX
93	11	3.36084	XX
94	12	3.41068	XX
95	16	3.57255	X

Contrast	Difference	+/- Limits
90 - 91	-0.165622	0.243439
90 - 92	-0.254219	0.260043
90 - 93	*-0.438027	0.260043
90 - 94	*-0.487864	0.253715
90 - 95	*-0.649739	0.235438
91 - 92	-0.0885963	0.263943
91 - 93	*-0.272404	0.263943
91 - 94	*-0.322242	0.257711
91 - 95	*-0.484116	0.239738
92 - 93	-0.183808	0.279331
92 - 94	-0.233646	0.27345
92 - 95	*-0.39552	0.256582
93 - 94	-0.0498377	0.27345
93 - 95	-0.211712	0.256582
94 - 95	-0.161874	0.250167

\* denotes a statistically significant difference.



## ANOVA Table for Jevnhet by Area

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	0.0901494	3	0.0300498	5.03	0.0031
Within groups	0.447719	75	0.00596959		
Total (Corr.)	0.537868	78			

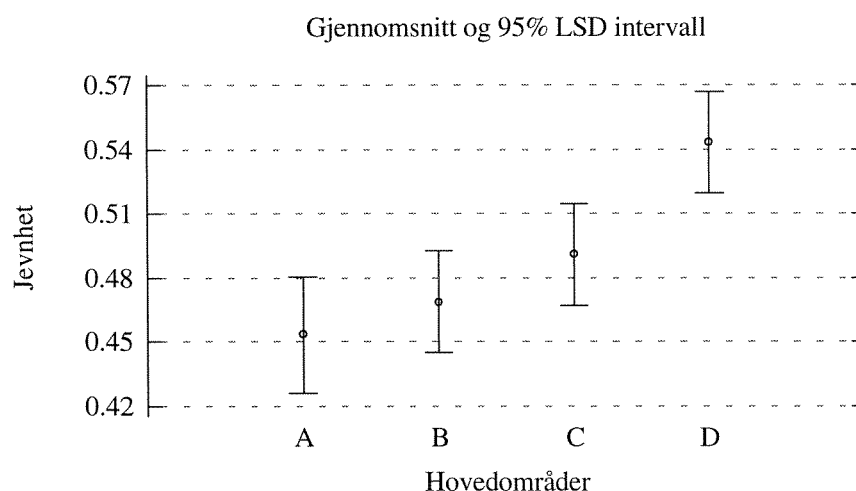
## Multiple Range Tests for Jevnhet by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
A	16	0.453353	X
B	21	0.468791	X
C	21	0.490827	X
D	21	0.543154	X

Contrast	Difference	+/- Limits
A - B	-0.0154389	0.0510759
A - C	-0.0374743	0.0510759
A - D	*-0.0898013	0.0510759
B - C	-0.0220354	0.0474996
B - D	*-0.0743624	0.0474996
C - D	*-0.052327	0.0474996

\* denotes a statistically significant difference.





## ANOVA Table for Jevnhet by Area (1995)

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	0.0256503	3	0.00855011	3.97	0.0354
Within groups	0.0258757	12	0.00215631		
Total (Corr.)	0.0515261	15			

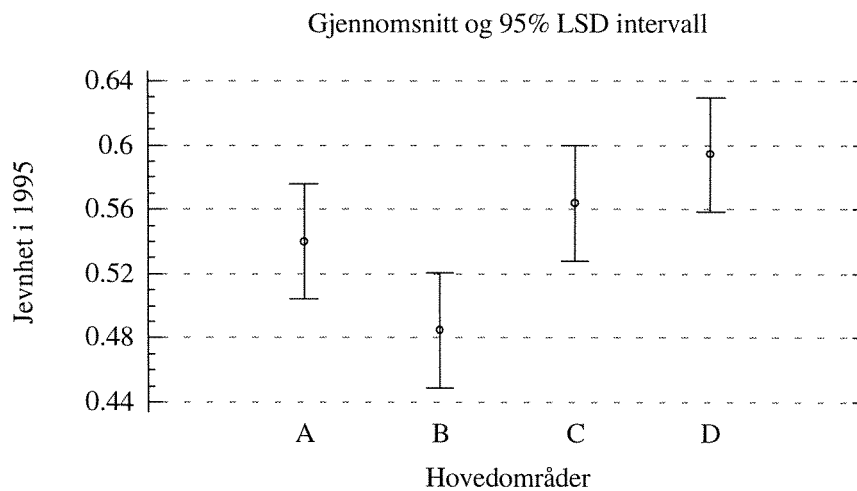
## Multiple Range Tests for Jevnhet by Area

Method: 95.0 percent LSD

Area	Count	Mean	Homogeneous Groups
B	4	0.484947	X
A	4	0.540266	XX
C	4	0.564109	X
D	4	0.594212	X

Contrast	Difference	+/- Limits
A - B	0.0553184	0.0715421
A - C	-0.0238432	0.0715421
A - D	-0.0539463	0.0715421
B - C	*-0.0791616	0.0715421
B - D	*-0.109265	0.0715421
C - D	-0.0301031	0.0715421

\* denotes a statistically significant difference.



## ANOVA Table for Jevnhet by St

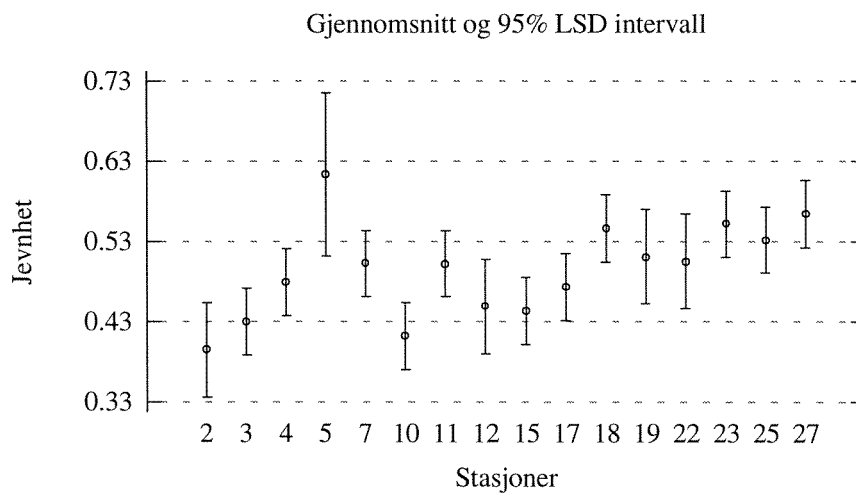
Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	0.210816	15	0.0140544	2.71	0.0030
Within groups	0.327053	63	0.00519131		
Total (Corr.)	0.537868	78			

## Multiple Range Tests for Jevnhet by St

Method: 95.0 percent LSD

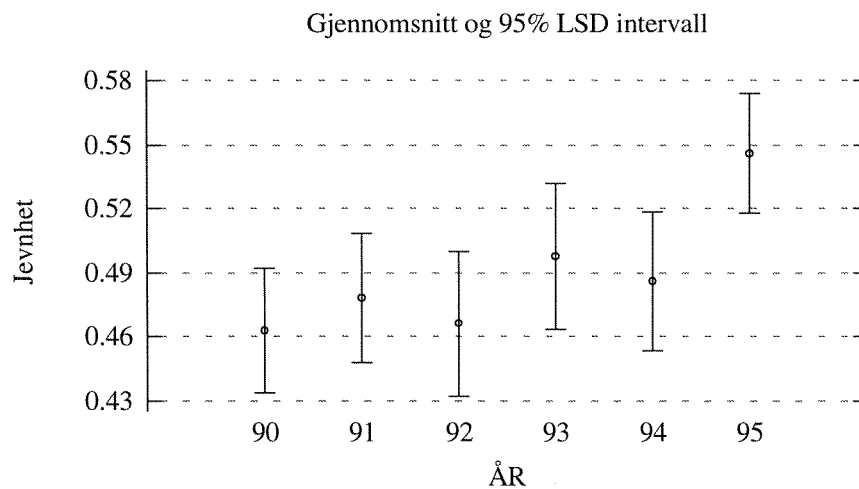
St	Count	Mean	Homogeneous Groups
2	3	0.394846	X
10	6	0.411687	X
3	6	0.429758	XX
15	6	0.443552	XX
12	3	0.449102	XXX
17	6	0.472784	XXXX
4	6	0.479548	XXXX
11	6	0.502113	XXXX
7	6	0.50242	XXXX
22	3	0.50503	XXXXXX
19	3	0.511133	XXXXXX
25	6	0.531998	XXX
18	6	0.545992	XXX
23	6	0.551896	XX
27	6	0.56463	X
5	1	0.613267	XXX

difference equals 0.



## ANOVA Table for Jevnhet by Year

Analysis of Variance					
Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between groups	0.0697809	5	0.0139562	2.18	0.0659
Within groups	0.468088	73	0.00641216		
Total (Corr.)	0.537868	78			



### “SIMPER” analyse - DYR : Området A

#### SIMILARITY PERCENTAGES (SIMPER)

SOURCE DATA FILE : G:\K195\NOG\AG.PM1

HEADING

NUMBER OF SPECIES (ROWS) IN DATA SET = 69  
NUMBER OF COLUMNS IN DATA SET = 16

NO SPECIES REDUCTION

SPECIES NAME FILE : G:\K195\NOG\AG.LST

Groups 1-6 korresponderer hht. til årene 1991, 1992, 1993, 1994, 1995 og 1990

GROUP	SIZE	COLUMN NUMBERS
1	2	5,11
2	2	6,12
3	2	7,13
4	3	2,8,14
5	4	3,9,15,16
6	3	1,4,10

SQUARE ROOT TRANSFORMATION  
BRAY-CURTIS SIMILARITY

Value for percentage cutoff = 100.0

GROUP 1 AVERAGE SIMILARITY = 55.24

SPECIES	AV.ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
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GROUP 2 AVERAGE SIMILARITY = 61.01

SPECIES	AV.ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
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GROUP 3 AVERAGE SIMILARITY = 74.50

SPECIES	AV.ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
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GROUP 4 AVERAGE SIMILARITY = 66.02

SPECIES	AV.ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	52	80.00	6.7	29.34	10.14
POMTR	40	45.67	5.3	8.85	18.24
ALCDI	31	36.33	4.6	5.97	25.27
ASCIQ	6	25.00	4.0	13.27	31.36
CORPA	11	25.00	3.9	11.67	37.28
MYTED	69	25.00	3.9	15.78	43.16
URTFE	36	18.67	2.6	4.47	47.12
CIOIN	10	11.67	2.3	13.27	50.64

GROUP 5 AVERAGE SIMILARITY = 66.88

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	52	67.50	5.8	9.15	8.61	8.61
POMTR	40	42.25	4.4	22.70	6.63	15.23
ASCIQ	6	34.25	4.2	23.82	6.22	21.46
ALCDI	31	37.00	3.9	3.37	5.85	27.31
ELEPI	49	20.75	3.2	11.20	4.85	32.16
CIOIN	10	23.00	3.2	7.45	4.81	36.97
BRYEQ	46	22.25	3.1	5.09	4.63	41.60
CORPA	11	18.50	2.7	7.27	4.08	45.68
BRYFQ	45	29.00	2.7	2.51	4.08	49.76
BALAQ	37	15.00	2.6	4.81	3.93	53.69

GROUP 6 AVERAGE SIMILARITY = 51.04

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	52	64.67	8.4	31.28	16.46	16.46
ALCDI	31	46.00	7.0	190.77	13.62	30.08
POMTR	40	47.00	5.9	2.95	11.53	41.62
MYTED	69	15.33	4.0	29.98	7.89	49.51
MARGL	53	13.67	3.5	8.93	6.76	56.27

AVERAGE DISSIMILARITY BETWEEN GROUPS 2 &amp; 1 = 43.05

SPECIES	NO	GROUP 2	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
BRYFQ	45	58.00	18.00	2.51	1.35	5.84	5.84
CIOIN	10	4.50	30.00	2.24	1.22	5.19	11.03
ELEPI	49	16.00	.00	2.00	2.10	4.64	15.68
POMTR	40	61.50	40.50	1.89	1.13	4.38	20.06
SPIRQ	43	13.00	.00	1.84	2.39	4.27	24.33
CAMPQ	24	17.00	7.50	1.63	2.79	3.78	28.10

AVERAGE DISSIMILARITY BETWEEN GROUPS 3 &amp; 1 = 45.50

SPECIES	NO	GROUP 3	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
ASCIQ	6	34.00	.00	3.00	18.07	6.59	6.59
ELEPI	49	26.00	.00	2.62	19.33	5.76	12.36
MEMME	51	18.00	.00	2.18	18.07	4.80	17.15
CIOIN	10	8.00	30.00	2.02	2.60	4.43	21.59
ACTEQ	29	12.50	.00	1.76	2.89	3.87	25.45

AVERAGE DISSIMILARITY BETWEEN GROUPS 3 &amp; 2 = 35.28

SPECIES	NO	GROUP 3	GROUP 2	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
ASCIQ	6	34.00	.00	2.58	20.19	7.31	7.31
ACTEQ	29	12.50	.00	1.51	2.92	4.28	11.59
BRYFQ	45	19.00	58.00	1.48	2.66	4.20	15.78
CAMPQ	24	29.00	17.00	1.33	1.01	3.78	19.56
MEMME	51	18.00	15.00	1.24	1.50	3.51	23.07
CRISQ	47	15.50	3.00	1.20	1.53	3.39	26.46

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 &amp; 1 = 46.53

SPECIES	NO	GROUP 4	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
ASCIQ	6	25.00	.00	2.57	11.04	5.52	5.52
CIOIN	10	11.67	30.00	2.01	3.20	4.32	9.84
MYTED	69	25.00	2.50	1.96	3.55	4.20	14.05
CORPA	11	25.00	2.50	1.82	3.63	3.91	17.96
POMTR	40	45.67	40.50	1.70	1.97	3.65	21.62
BRYFQ	45	15.33	18.00	1.53	1.97	3.30	24.91
LACUQ	61	8.67	.00	1.40	2.42	3.01	27.92

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 &amp; 2 = 39.80

SPECIES	NO	GROUP 4	GROUP 2	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
ASCIQ	6	25.00	.00	2.21	12.98	5.54	5.54
BRYFQ	45	15.33	58.00	1.76	2.13	4.42	9.97
SAGAQ	35	8.67	.00	1.30	4.20	3.27	13.23
CAMPQ	24	13.33	17.00	1.29	1.91	3.25	16.49
MEMME	51	10.67	15.00	1.20	1.26	3.03	19.51
LACUQ	61	8.67	.00	1.20	2.41	3.03	22.54
SPIRQ	43	6.33	13.00	1.19	1.59	2.99	25.53

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 &amp; 3 = 33.77

SPECIES	NO	GROUP 4	GROUP 3	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
ACTEQ	29	.00	12.50	1.41	3.03	4.18	4.18
CRISQ	47	2.33	15.50	1.15	1.82	3.41	7.59
LACUQ	61	8.67	.00	1.12	2.41	3.33	10.92
ELEPI	49	9.67	26.00	1.10	1.19	3.27	14.19
HALIQ	14	9.00	26.00	1.06	1.53	3.15	17.34
SYCOQ	19	2.00	11.00	1.02	1.56	3.02	20.36
SAGAQ	35	8.67	.50	1.01	2.82	2.99	23.34
ASCVI	5	1.00	11.00	.96	1.65	2.85	26.19

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 1 = 49.79

SPECIES	NO	GROUP 5	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
ASCIQ	6	34.25	.00	2.87	9.94	5.76	5.76
ELEPI	49	20.75	.00	2.24	7.90	4.49	10.25
CIOIN	10	23.00	30.00	1.89	3.41	3.80	14.06
MEMME	51	13.50	.00	1.79	8.32	3.59	17.65
BRYFQ	45	29.00	18.00	1.65	1.46	3.32	20.97
POMTR	40	42.25	40.50	1.62	2.03	3.25	24.23
SPIRQ	43	10.50	.00	1.55	4.35	3.12	27.35

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 2 = 39.00

SPECIES	NO	GROUP 5	GROUP 2	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
ASCIQ	6	34.25	.00	2.48	10.03	6.36	6.36
CIOIN	10	23.00	4.50	1.35	1.87	3.46	9.82
CAMPQ	24	22.25	17.00	1.33	1.15	3.40	13.22
CRISQ	47	19.00	3.00	1.28	1.57	3.29	16.50
BRYEQ	46	22.25	13.00	1.19	1.18	3.06	19.56
MEMME	51	13.50	15.00	1.18	2.36	3.03	22.59
BRYFQ	45	29.00	58.00	1.18	1.41	3.03	25.62

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 3 = 31.94

SPECIES	NO	GROUP 5 =====		GROUP 3 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
ACTEQ	29		.00		12.50	1.36	3.17	4.27	4.27
SYCOQ	19		.00		11.00	1.27	3.01	3.99	8.25
TUBLA	23		.00		9.00	1.18	5.77	3.68	11.94
URTFE	36	14.00		22.00		.98	1.39	3.06	14.99
FLUFO	50	12.00		.00		.96	.93	3.01	18.01
PORIQ	18	11.75		1.00		.96	1.21	2.99	21.00
ASCEQ	7	8.00		.00		.94	1.54	2.95	23.96
ASCME	4	3.75		13.50		.93	1.46	2.92	26.88

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 4 = 37.45

SPECIES	NO	GROUP 5 =====		GROUP 4 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
CRISQ	47	19.00		2.33		1.23	1.76	3.29	3.29
LACUQ	61	.00		8.67		1.09	2.52	2.90	6.19
SAGAQ	35	.25		8.67		1.07	3.70	2.85	9.04
SPIRQ	43	10.50		6.33		1.01	2.00	2.70	11.75
PLUMQ	26	5.25		9.33		1.00	1.86	2.68	14.42
FLUFO	50	12.00		7.33		.97	.98	2.60	17.02
CAMPQ	24	22.25		13.33		.97	1.52	2.58	19.60
ASCVI	5	10.75		1.00		.96	2.15	2.56	22.16
URTFE	36	14.00		18.67		.96	1.63	2.55	24.72
PORIQ	18	11.75		5.33		.91	1.46	2.43	27.15

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 &amp; 1 = 44.97

SPECIES	NO	GROUP 6 =====		GROUP 1 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
CIOIN	10	.67		30.00		2.42	1.07	5.38	5.38
BRYFQ	45	24.67		18.00		2.11	1.25	4.70	10.08
POMTR	40	47.00		40.50		1.98	1.45	4.40	14.48
CAMPQ	24	20.33		7.50		1.69	2.35	3.75	18.23
ASCIQ	6	10.33		.00		1.66	1.59	3.70	21.93
MYTED	69	15.33		2.50		1.64	2.52	3.65	25.58
BALBU	38	7.33		.00		1.51	2.48	3.36	28.93

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 &amp; 2 = 41.71

SPECIES	NO	GROUP 6 =====		GROUP 2 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
BRYFQ	45	24.67		58.00		1.95	1.21	4.68	4.68
SPIRQ	43	.00		13.00		1.65	2.51	3.96	8.64
CAMPQ	24	20.33		17.00		1.52	1.02	3.66	12.30
ELEPI	49	1.33		16.00		1.45	1.49	3.48	15.78
ASCIQ	6	10.33		.00		1.40	1.59	3.35	19.13
MEMME	51	.00		15.00		1.31	.91	3.15	22.28
BRYEQ	46	11.00		13.00		1.30	1.12	3.11	25.39

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 &amp; 3 = 42.70

SPECIES	NO	GROUP 6 =====		GROUP 3 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
ELEPI	49	1.33	26.00	2.05	4.52	4.81	4.81		
MEMME	51	.00	18.00	1.97	44.48	4.62	9.43		
HALIQ	14	5.33	26.00	1.73	1.63	4.06	13.49		
ACTEQ	29	.00	12.50	1.59	3.10	3.72	17.21		
ASCIQ	6	10.33	34.00	1.42	1.74	3.32	20.53		
CRISQ	47	7.67	15.50	1.35	1.66	3.16	23.69		
BRYFQ	45	24.67	19.00	1.31	1.59	3.06	26.76		

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 &amp; 4 = 42.62

SPECIES	NO	GROUP 6 =====		GROUP 4 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
BRYFQ	45	24.67	15.33	1.36	1.56	3.18	3.18		
LACUQ	61	.00	8.67	1.27	2.51	2.97	6.16		
CIOIN	10	.67	11.67	1.23	3.36	2.87	9.03		
CORPA	11	8.67	25.00	1.22	1.39	2.85	11.88		
FLUFO	50	12.33	7.33	1.21	.94	2.83	14.72		
CAMPQ	24	20.33	13.33	1.19	1.55	2.79	17.51		
MEMME	51	.00	10.67	1.17	1.33	2.75	20.26		
HALIQ	14	5.33	9.00	1.08	1.68	2.52	22.78		
CAPRQ	2	7.33	6.67	1.06	1.34	2.49	25.27		

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 &amp; 5 = 44.35

SPECIES	NO	GROUP 6 =====		GROUP 5 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
CIOIN	10	.67	23.00	1.81	4.31	4.09	4.09		
ELEPI	49	1.33	20.75	1.73	3.61	3.89	7.98		
MEMME	51	.00	13.50	1.62	8.92	3.66	11.64		
CRISQ	47	7.67	19.00	1.42	1.70	3.21	14.85		
BRYFQ	45	24.67	29.00	1.41	1.37	3.18	18.03		
SPIRQ	43	.00	10.50	1.41	4.51	3.18	21.20		
ASCIQ	6	10.33	34.25	1.36	1.72	3.06	24.26		
FLUFO	50	12.33	12.00	1.27	1.07	2.85	27.12		



**“SIMPER” analyse - DYR : Området B**

## SIMILARITY PERCENTAGES (SIMPER)

SOURCE DATA FILE : G:\K195\NOG\BG.PM1

HEADING

NUMBER OF SPECIES (ROWS) IN DATA SET = 69  
NUMBER OF COLUMNS IN DATA SET = 21

NO SPECIES REDUCTION

SPECIES NAME FILE : G:\K195\NOG\BG.LST

Groups 1-6 korresponderer hht. til årene 1990, 1991, 1992, 1993, 1994 og 1995

GROUP	SIZE	COLUMN NUMBERS
1	4	1,7,13,19
2	4	2,8,14,20
3	3	3,9,15
4	3	4,10,16
5	3	5,11,17
6	4	6,12,18,21

SQUARE ROOT TRANSFORMATION  
BRAY-CURTIS SIMILARITY

Value for percentage cutoff = 100.0

GROUP 1 AVERAGE SIMILARITY = 64.17

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	54	50.25	7.3	5.48	11.34
POMTR	41	48.00	7.0	11.01	22.23
ASCIQ	6	51.75	6.3	6.90	32.01
MEMME	53	33.00	5.9	5.58	41.21
CAMPQ	23	25.75	4.2	2.18	47.68
ALCDI	31	8.25	3.0	5.25	52.29

GROUP 2 AVERAGE SIMILARITY = 67.42

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	54	51.75	7.5	21.16	11.11
POMTR	41	48.50	7.4	26.79	22.02
MEMME	53	29.50	5.7	20.37	30.45
CAMPQ	23	32.75	5.5	8.57	38.56
ELEPI	51	26.50	5.0	5.86	45.97
ALCDI	31	18.50	4.1	10.31	52.09

GROUP 3 AVERAGE SIMILARITY = 73.85

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
BRYEQ	47	73.00	5.9	6.17	8.00
POMTR	41	45.33	5.2	13.66	15.08
LEUCQ	16	42.00	5.0	110.03	21.79
ASTEQ	54	48.00	4.9	181.33	28.47
MEMME	53	43.67	4.9	9.16	35.12
ELEPI	51	42.33	4.8	14.31	41.65
SPIRQ	44	36.33	3.9	53.43	46.87
CORPA	11	33.00	3.7	4.73	51.83

GROUP 4 AVERAGE SIMILARITY = 71.05

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	54	71.67	6.2	12.36	8.69	8.69
MEMME	53	39.00	4.8	11.32	6.73	15.41
ELEPI	51	38.33	4.7	17.38	6.60	22.02
POMTR	41	39.67	4.7	15.95	6.59	28.61
CRISQ	49	36.00	4.3	9.11	5.99	34.60
CAMPQ	23	34.33	3.5	3.43	4.96	39.56
BRYFQ	46	22.67	3.2	10.13	4.52	44.08
ASCIQ	6	30.67	2.8	2.75	3.97	48.04
ALCDI	31	17.67	2.7	3.69	3.79	51.83

GROUP 5 AVERAGE SIMILARITY = 71.59

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	54	81.33	5.7	10.74	7.89	7.89
POMTR	41	52.67	4.9	18.29	6.80	14.69
ELEPI	51	35.33	3.9	12.03	5.49	20.18
BRYEQ	47	41.33	3.9	17.64	5.43	25.62
CRISQ	49	38.33	3.7	7.74	5.11	30.73
SPIRQ	44	31.67	3.4	17.32	4.77	35.50
ASCIQ	6	41.33	3.4	5.08	4.72	40.22
CAMPQ	23	22.00	2.9	12.43	4.05	44.27
MYTED	69	37.33	2.6	1.86	3.65	47.93
MEMME	53	18.67	2.2	2.35	3.09	51.02

GROUP 6 AVERAGE SIMILARITY = 74.38

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	54	70.50	5.6	3.32	7.52	7.52
ASCIQ	6	60.75	5.3	9.76	7.14	14.66
BRYEQ	47	53.50	5.3	14.92	7.07	21.73
POMTR	41	40.00	4.5	21.27	6.12	27.84
CAMPQ	23	32.75	4.0	5.10	5.32	33.16
CRISQ	49	29.25	3.8	18.22	5.12	38.28
MEMME	53	24.00	3.5	10.51	4.70	42.98
CORPA	11	23.75	3.1	10.03	4.23	47.21
SPIRQ	44	24.25	3.0	9.48	4.03	51.24

AVERAGE DISSIMILARITY BETWEEN GROUPS 2 &amp; 1 = 38.99

SPECIES	NO	GROUP 2	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
ASCIQ	6	5.50	51.75	2.77	2.15	7.10	7.10
ELEPI	51	26.50	6.00	1.58	2.12	4.06	11.17
BRYEQ	47	16.75	3.00	1.55	1.52	3.98	15.15
ASCEQ	7	7.00	.00	1.42	4.97	3.65	18.80
OPHIQ	57	.25	9.50	1.34	1.66	3.45	22.24
CORPA	11	3.50	13.25	1.34	1.40	3.43	25.67

AVERAGE DISSIMILARITY BETWEEN GROUPS 3 &amp; 1 = 45.84

SPECIES	NO	GROUP 3	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
BRYEQ	47	73.00	3.00	3.42	3.31	7.47	7.47
SPIRQ	44	36.33	.00	2.72	4.62	5.93	13.40
TUBUQ	50	28.67	.00	2.33	1.79	5.07	18.47
LEUCQ	16	42.00	3.75	2.22	5.39	4.84	23.31
ELEPI	51	42.33	6.00	2.01	2.76	4.39	27.70

AVERAGE DISSIMILARITY BETWEEN GROUPS 3 &amp; 2 = 37.24

SPECIES	NO	GROUP 3 =====		GROUP 2 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
LEUCQ	16	42.00		1.50		2.50	7.46	6.71	6.71
SPIRQ	44	36.33		2.00		2.32	2.98	6.24	12.95
BRYEQ	47	73.00		16.75		2.21	1.91	5.94	18.89
CORPA	11	33.00		3.50		1.92	2.44	5.16	24.05
TUBUQ	50	28.67		6.00		1.69	1.43	4.55	28.60

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 &amp; 1 = 38.43

SPECIES	NO	GROUP 4 =====		GROUP 1 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
ELEPI	51	38.33		6.00		1.83	3.17	4.76	4.76
SPIRQ	44	19.67		.00		1.67	1.58	4.35	9.11
BRYEQ	47	25.33		3.00		1.53	1.40	3.98	13.09
CRISQ	49	36.00		14.75		1.43	1.76	3.72	16.81
ASCIQ	6	30.67		51.75		1.15	1.25	3.00	19.81
BALBU	39	.67		9.50		1.14	2.42	2.96	22.77
HYMEQ	15	9.33		1.50		1.13	2.12	2.95	25.72

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 &amp; 2 = 36.05

SPECIES	NO	GROUP 4 =====		GROUP 2 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
ASCIQ	6	30.67		5.50		1.58	1.65	4.39	4.39
CRISQ	49	36.00		7.25		1.53	3.24	4.24	8.63
SPIRQ	44	19.67		2.00		1.45	1.47	4.03	12.66
PORIQ	18	9.00		.00		1.35	29.00	3.75	16.41
MYTED	69	19.67		3.75		1.21	1.22	3.35	19.75
BRYEQ	47	25.33		16.75		1.18	1.55	3.27	23.02
GIBBQ	59	9.33		9.50		1.05	1.48	2.91	25.93

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 &amp; 3 = 32.50

SPECIES	NO	GROUP 4 =====		GROUP 3 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
LEUCQ	16	3.33		42.00		2.05	3.34	6.32	6.32
BRYEQ	47	25.33		73.00		1.75	1.50	5.39	11.71
TUBUQ	50	6.67		28.67		1.22	1.25	3.75	15.46
ASCIQ	6	30.67		12.33		1.20	1.29	3.68	19.14
SPIRQ	44	19.67		36.33		1.20	1.61	3.68	22.82
PORIQ	18	9.00		.00		1.19	16.02	3.65	26.47

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 1 = 42.88

SPECIES	NO	GROUP 5 =====		GROUP 1 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
SPIRQ	44	31.67		.00		2.36	8.50	5.51	5.51
BRYEQ	47	41.33		3.00		2.19	3.31	5.12	10.63
ELEPI	51	35.33		6.00		1.59	2.97	3.70	14.32
MYTED	69	37.33		5.00		1.55	1.40	3.62	17.94
EGGMA	60	11.33		.00		1.40	9.02	3.27	21.21
CRISQ	49	38.33		14.75		1.37	1.74	3.20	24.41
BOTRQ	9	15.33		1.75		1.37	1.97	3.19	27.59

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 2 = 42.17

SPECIES	NO	GROUP 5	GROUP 2	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
SPIRQ	44	31.67	2.00	2.01	3.63	4.77	4.77
ASCIQ	6	41.33	5.50	1.81	2.06	4.28	9.05
MYTED	69	37.33	3.75	1.78	1.56	4.21	13.26
PORIQ	18	18.00	.00	1.69	3.66	4.00	17.26
CRISQ	49	38.33	7.25	1.46	2.90	3.47	20.74
EGGMA	60	11.33	.00	1.38	9.89	3.27	24.00
OPHIQ	57	12.00	.25	1.31	3.60	3.11	27.11

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 3 = 36.41

SPECIES	NO	GROUP 5	GROUP 3	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
MYTED	69	37.33	2.00	1.60	1.63	4.38	4.38
PORIQ	18	18.00	.00	1.50	3.52	4.11	8.49
TUBUQ	50	3.00	28.67	1.37	1.40	3.76	12.25
ASCIQ	6	41.33	12.33	1.27	1.23	3.48	15.73
OPHIQ	57	12.00	.00	1.26	4.13	3.45	19.18
EGGMA	60	11.33	.00	1.22	8.33	3.35	22.53
BALBU	39	9.33	.00	1.11	3.30	3.04	25.57

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 4 = 30.99

SPECIES	NO	GROUP 5	GROUP 4	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BOTRQ	9	15.33	.33	1.26	2.58	4.06	4.06
BRYEQ	47	41.33	25.33	1.08	1.68	3.49	7.55
MYTED	69	37.33	19.67	1.01	1.28	3.27	10.82
SPIRQ	44	31.67	19.67	1.00	1.65	3.22	14.03
EGGMA	60	11.33	6.00	.94	1.93	3.02	17.05
BALBU	39	9.33	.67	.92	2.25	2.96	20.01
LEUCQ	16	14.33	3.33	.89	1.61	2.86	22.88
ASCVI	5	5.00	16.00	.85	1.37	2.75	25.63

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 &amp; 1 = 38.47

SPECIES	NO	GROUP 6	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BRYEQ	47	53.50	3.00	2.75	4.77	7.14	7.14
SPIRQ	44	24.25	.00	2.14	5.14	5.57	12.71
CRISQ	49	29.25	14.75	1.27	2.21	3.29	16.00
CORPA	11	23.75	13.25	1.21	1.36	3.15	19.15
ELEPI	51	21.75	6.00	1.19	1.75	3.09	22.24
ASCEQ	7	7.00	.00	1.19	6.69	3.09	25.33

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 &amp; 2 = 36.67

SPECIES	NO	GROUP 6	GROUP 2	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
ASCIQ	6	60.75	5.50	2.60	3.21	7.10	7.10
SPIRQ	44	24.25	2.00	1.78	2.65	4.84	11.94
BRYEQ	47	53.50	16.75	1.59	1.88	4.33	16.27
CORPA	11	23.75	3.50	1.51	2.28	4.12	20.39
PORIQ	18	10.75	.00	1.33	2.77	3.62	24.02
CRISQ	49	29.25	7.25	1.24	3.08	3.38	27.40

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 & 3 = 33.99

SPECIES	NO	GROUP 6	GROUP 3	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
LEUCQ	16	1.50	42.00	2.20	4.53	6.48	6.48
ASCIQ	6	60.75	12.33	1.93	1.88	5.67	12.15
SYCOQ	19	.25	17.67	1.52	5.35	4.48	16.63
TUBUQ	50	6.75	28.67	1.42	1.41	4.19	20.82
PORIQ	18	10.75	.00	1.17	2.68	3.44	24.27
CAMPQ	23	32.75	10.00	1.02	2.37	2.99	27.26

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 & 4 = 28.28

SPECIES	NO	GROUP 6	GROUP 4	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BRYEQ	47	53.50	25.33	1.30	1.55	4.60	4.60
ASCIQ	6	60.75	30.67	1.08	1.45	3.81	8.41
BOTRQ	9	9.25	.33	1.00	2.35	3.55	11.96
SPIRQ	44	24.25	19.67	.93	1.61	3.30	15.26
ASCME	4	16.25	12.67	.87	1.84	3.08	18.34
BALBU	39	9.25	.67	.80	1.28	2.84	21.17
TUBUQ	50	6.75	6.67	.72	1.59	2.56	23.74
MYTED	69	10.75	19.67	.71	1.21	2.49	26.23

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 & 5 = 30.13

SPECIES	NO	GROUP 6	GROUP 5	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
MYTED	69	10.75	37.33	1.10	1.46	3.64	3.64
EGGMA	60	.50	11.33	1.01	4.47	3.34	6.98
LEUCQ	16	1.50	14.33	.98	1.82	3.26	10.24
BRYFQ	46	15.00	29.00	.93	1.68	3.07	13.31
PHLEQ	13	2.00	13.00	.91	1.73	3.03	16.34
OPHIQ	57	2.50	12.00	.85	1.55	2.82	19.16
ASCME	4	16.25	10.67	.84	1.82	2.80	21.96
METSE	34	4.25	.00	.72	4.58	2.40	24.37
ASCIQ	6	60.75	41.33	.69	1.22	2.30	26.67

## "SIMPER" analyse - DYR : Området C

## SIMILARITY PERCENTAGES (SIMPER)

SOURCE DATA FILE : G:\K195\NOG\CG.PM1

HEADING

NUMBER OF SPECIES (ROWS) IN DATA SET = 70  
NUMBER OF COLUMNS IN DATA SET = 21

NO SPECIES REDUCTION

SPECIES NAME FILE : G:\K195\NOG\CG.LST

Groups 1-6 korresponderer hht. til årene 1990, 1991, 1992, 1993, 1994 og 1995

GROUP	SIZE	COLUMN NUMBERS
1	4	1,7,13,19
2	4	2,8,14,20
3	3	3,9,15
4	3	4,10,16
5	3	5,11,17
6	4	6,12,18,21

SQUARE ROOT TRANSFORMATION  
BRAY-CURTIS SIMILARITY

Value for percentage cutoff = 100.0

GROUP 1 AVERAGE SIMILARITY = 65.16

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
POMTR	40	44.50	6.6	11.20	10.08
ASTEQ	49	38.75	5.8	8.94	18.95
ELEPI	47	37.00	5.7	5.64	27.65
MEMME	48	29.25	4.9	4.75	35.17
BOTRQ	9	37.25	4.4	2.12	41.97
BRYEQ	43	28.00	4.3	4.42	48.55
CRISQ	45	24.25	4.2	3.93	54.97

GROUP 2 AVERAGE SIMILARITY = 67.62

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	49	46.00	6.2	15.13	9.22
MEMME	48	35.75	5.6	17.40	17.48
POMTR	40	38.00	5.5	8.49	25.67
BRYEQ	43	46.50	5.4	3.20	33.66
CAMPQ	24	35.75	4.5	2.47	40.26
ASCEQ	7	41.75	4.3	7.46	46.57
ELEPI	47	27.25	4.1	2.06	52.62

GROUP 3 AVERAGE SIMILARITY = 64.06

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	49	50.67	5.8	11.84	9.08
POMTR	40	53.33	5.7	14.09	18.00
BRYEQ	43	62.33	5.7	7.00	26.89
MEMME	48	38.33	4.8	5.07	34.45
ELEPI	47	42.67	4.7	3.13	41.74
BOTRQ	9	36.67	4.0	10.76	47.91
SPIRQ	41	25.33	3.6	11.67	53.49

GROUP 4 AVERAGE SIMILARITY = 68.16

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	49	72.00	6.1	10.66	8.90	8.90
CAMPQ	24	54.33	5.3	10.77	7.76	16.66
POMTR	40	48.33	5.0	11.79	7.39	24.04
CRISQ	45	52.33	4.7	4.86	6.87	30.91
ELEPI	47	43.33	4.5	5.58	6.57	37.48
BRYEQ	43	55.00	4.1	3.08	5.97	43.45
MEMME	48	30.67	3.6	2.95	5.34	48.79
DENGR	13	20.67	2.8	10.71	4.17	52.97

GROUP 5 AVERAGE SIMILARITY = 64.50

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	49	46.67	5.1	7.86	7.91	7.91
POMTR	40	42.67	5.0	16.77	7.80	15.71
ELEPI	47	38.00	4.7	8.71	7.24	22.95
BRYEQ	43	51.67	4.6	8.38	7.16	30.11
CRISQ	45	36.33	4.4	7.48	6.78	36.89
CAMPQ	24	26.67	4.0	17.32	6.20	43.09
SPIRQ	41	36.33	3.6	6.60	5.66	48.75
BOTRQ	9	25.33	3.6	16.14	5.54	54.28

GROUP 6 AVERAGE SIMILARITY = 68.82

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
BRYEQ	43	87.50	5.4	8.97	7.85	7.85
ASTEQ	49	50.25	4.8	20.56	7.00	14.84
ELEPI	47	44.25	4.3	8.97	6.29	21.14
POMTR	40	41.00	4.2	9.77	6.05	27.18
CRISQ	45	51.25	4.0	3.48	5.75	32.93
MEMME	48	34.75	3.9	15.62	5.71	38.64
CAMPQ	24	40.50	3.9	9.10	5.70	44.34
BOTRQ	9	28.75	3.2	14.83	4.62	48.97
SPIRQ	41	33.00	2.8	2.93	4.10	53.07

AVERAGE DISSIMILARITY BETWEEN GROUPS 2 &amp; 1 = 34.55

SPECIES	NO	GROUP 2	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
ASCEQ	7	41.75	13.50	2.14	1.56	6.19	6.19
ASCIQ	6	3.25	17.75	1.45	.96	4.20	10.38
BOTRQ	9	14.00	37.25	1.43	1.93	4.14	14.53
MYTED	70	23.00	3.00	1.41	1.70	4.08	18.61
CAMPQ	24	35.75	16.00	1.34	1.56	3.86	22.47
SPIRQ	41	4.25	13.50	1.29	1.43	3.73	26.20

AVERAGE DISSIMILARITY BETWEEN GROUPS 3 &amp; 1 = 33.83

SPECIES	NO	GROUP 3	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
BRYFQ	42	37.33	11.50	1.96	1.33	5.79	5.79
ASCEQ	7	36.00	13.50	1.89	1.32	5.58	11.37
ASCIQ	6	9.67	17.75	1.43	1.13	4.23	15.60
BRYEQ	43	62.33	28.00	1.26	1.62	3.71	19.32
SPIRQ	41	25.33	13.50	1.20	1.41	3.53	22.85
BOTRQ	9	36.67	37.25	1.05	1.93	3.10	25.95

AVERAGE DISSIMILARITY BETWEEN GROUPS 3 &amp; 2 = 35.35

SPECIES	NO	GROUP 3	GROUP 2	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BRYFQ	42	37.33	2.75	1.94	1.46	5.48	5.48
ASCEQ	7	36.00	41.75	1.73	1.63	4.91	10.39
SPIRQ	41	25.33	4.25	1.62	1.79	4.59	14.98
CAMPQ	24	10.00	35.75	1.39	1.74	3.94	18.92
MYTED	70	9.67	23.00	1.17	1.32	3.31	22.23
ALCDI	31	6.67	10.50	1.09	1.13	3.09	25.31

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 &amp; 1 = 36.10

SPECIES	NO	GROUP 4	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BOTRQ	9	4.33	37.25	1.80	1.92	4.98	4.98
CAMPQ	24	54.33	16.00	1.58	2.17	4.38	9.36
ASCEQ	7	23.67	13.50	1.47	1.41	4.06	13.43
MYTED	70	30.33	3.00	1.45	1.29	4.01	17.44
BRYFQ	42	16.33	11.50	1.34	1.43	3.70	21.14
ASCIQ	6	8.33	17.75	1.28	1.18	3.55	24.69
GIBBQ	55	15.33	9.25	1.16	1.43	3.21	27.90

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 &amp; 2 = 34.91

SPECIES	NO	GROUP 4	GROUP 2	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
ASCEQ	7	23.67	41.75	1.75	1.85	5.02	5.02
CRISQ	45	52.33	19.00	1.39	1.31	3.97	8.99
SPIRQ	41	20.33	4.25	1.29	1.37	3.71	12.70
BRYFQ	42	16.33	2.75	1.20	1.64	3.44	16.14
DENGR	13	20.67	5.00	1.09	1.77	3.12	19.25
DYNPU	25	10.33	8.00	1.08	1.38	3.08	22.34
MYTED	70	30.33	23.00	1.03	1.20	2.94	25.28

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 &amp; 3 = 34.45

SPECIES	NO	GROUP 4	GROUP 3	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
CAMPQ	24	54.33	10.00	1.76	3.49	5.10	5.10
ASCEQ	7	23.67	36.00	1.64	1.47	4.75	9.85
BOTRQ	9	4.33	36.67	1.63	2.05	4.72	14.57
BRYFQ	42	16.33	37.33	1.50	1.25	4.35	18.92
MYTED	70	30.33	9.67	1.28	1.26	3.70	22.62
SYCOQ	19	1.00	12.33	1.03	1.37	2.98	25.60

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 1 = 35.81

SPECIES	NO	GROUP 5	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
ASCEQ	7	39.67	13.50	1.91	1.51	5.34	5.34
MYTED	70	26.00	3.00	1.60	2.19	4.46	9.79
BRYFQ	42	15.33	11.50	1.49	3.58	4.17	13.97
SPIRQ	41	36.33	13.50	1.46	1.42	4.08	18.05
ASCIQ	6	7.00	17.75	1.33	1.23	3.72	21.77
MARGL	50	17.33	3.75	1.12	1.30	3.11	24.88
URTFE	35	15.67	12.25	1.05	1.29	2.94	27.82



AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 2 = 34.43

SPECIES	NO	GROUP 5 =====		GROUP 2 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
SPIRQ	41	36.33		4.25		1.95	1.87	5.68	5.68
ASCEQ	7	39.67		41.75		1.33	1.58	3.86	9.54
MYTED	70	26.00		23.00		1.29	1.37	3.75	13.29
BRYFQ	42	15.33		2.75		1.25	2.09	3.62	16.90
BALBU	37	9.00		.50		1.14	3.24	3.32	20.22
ALCDI	31	6.67		10.50		1.07	1.13	3.11	23.34
MARGL	50	17.33		4.25		1.02	1.34	2.96	26.30

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 3 = 33.81

SPECIES	NO	GROUP 5 =====		GROUP 3 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
ASCEQ	7	39.67		36.00		1.49	1.26	4.41	4.41
BRYFQ	42	15.33		37.33		1.46	1.98	4.31	8.71
MYTED	70	26.00		9.67		1.37	1.55	4.05	12.76
BALBU	37	9.00		.33		1.11	4.73	3.29	16.05
MARGL	50	17.33		11.00		1.03	1.47	3.04	19.09
BALAQ	36	.33		10.00		1.01	1.56	2.99	22.09
ASCIQ	6	7.00		9.67		1.00	1.35	2.97	25.06

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 4 = 34.96

SPECIES	NO	GROUP 5 =====		GROUP 4 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
ASCEQ	7	39.67		23.67		1.51	1.45	4.33	4.33
BOTRQ	9	25.33		4.33		1.28	2.03	3.66	8.00
MYTED	70	26.00		30.33		1.25	1.26	3.58	11.58
BALAQ	36	.33		10.00		1.12	3.43	3.21	14.79
GIBBQ	55	9.33		15.33		.98	1.36	2.81	17.60
DYNPU	25	.67		10.33		.98	1.56	2.80	20.40
HALEQ	26	6.33		11.67		.97	1.20	2.78	23.18
SPIRQ	41	36.33		20.33		.97	1.46	2.77	25.95

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 &amp; 1 = 36.71

SPECIES	NO	GROUP 6 =====		GROUP 1 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
BRYEQ	43	87.50		28.00		1.64	1.69	4.48	4.48
ASCEQ	7	37.25		13.50		1.64	1.51	4.47	8.94
TUBUQ	46	13.25		.00		1.45	3.32	3.94	12.88
BRYFQ	42	23.00		11.50		1.36	1.12	3.71	16.59
SPIRQ	41	33.00		13.50		1.27	1.40	3.47	20.06
ASCIQ	6	12.50		17.75		1.25	1.11	3.42	23.48
CAMPQ	24	40.50		16.00		1.10	1.57	2.99	26.47

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 &amp; 2 = 33.88

SPECIES	NO	GROUP 6 =====		GROUP 2 =====		AV TERM	RATIO	PERCENT	CUM %
		AV	ABUN	AV	ABUN				
SPIRQ	41	33.00		4.25		1.65	1.68	4.87	4.87
BRYFQ	42	23.00		2.75		1.35	1.35	3.98	8.85
CRISQ	45	51.25		19.00		1.34	1.45	3.95	12.80
BRYEQ	43	87.50		46.50		1.15	1.16	3.39	16.19
SERTQ	28	17.50		3.00		1.06	1.41	3.13	19.32
ASCEQ	7	37.25		41.75		1.05	1.33	3.10	22.42
ASCIQ	6	12.50		3.25		.98	1.05	2.90	25.31

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 & 3 = 33.02

SPECIES	NO	GROUP 6	GROUP 3	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BRYFQ	42	23.00	37.33	1.56	1.37	4.73	4.73
ASCEQ	7	37.25	36.00	1.35	1.49	4.09	8.81
CAMPQ	24	40.50	10.00	1.27	2.38	3.84	12.65
TUBUQ	46	13.25	5.33	1.04	1.59	3.16	15.81
HALIQ	15	22.75	4.67	1.01	1.57	3.07	18.88
ASCIQ	6	12.50	9.67	1.01	1.14	3.05	21.93
CRISQ	45	51.25	27.00	.98	1.53	2.98	24.92
CORPA	12	10.50	7.67	.86	1.27	2.61	27.53

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 & 4 = 30.65

SPECIES	NO	GROUP 6	GROUP 4	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
ASCEQ	7	37.25	23.67	1.38	1.76	4.49	4.49
BOTRQ	9	28.75	4.33	1.28	2.28	4.16	8.65
BRYFQ	42	23.00	16.33	1.18	1.40	3.86	12.51
TUBUQ	46	13.25	.33	1.16	2.56	3.80	16.31
BRYEQ	43	87.50	55.00	1.00	1.09	3.25	19.56
GIBBQ	55	7.50	15.33	.98	1.32	3.18	22.74
ASCIQ	6	12.50	8.33	.90	1.23	2.95	25.69

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 & 5 = 32.21

SPECIES	NO	GROUP 6	GROUP 5	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BRYFQ	42	23.00	15.33	1.18	4.49	3.67	3.67
BALAQ	36	10.25	.33	1.06	3.09	3.29	6.96
MYTED	70	15.75	26.00	1.05	1.71	3.26	10.22
BRYEQ	43	87.50	51.67	1.05	1.26	3.25	13.47
ASCEQ	7	37.25	39.67	1.02	1.41	3.16	16.63
SERTQ	28	17.50	3.00	1.00	1.35	3.10	19.73
ASCIQ	6	12.50	7.00	.92	1.35	2.87	22.60
TUBUQ	46	13.25	5.00	.89	1.54	2.75	25.35

## “SIMPER” analyse - DYR : Området D

### SIMILARITY PERCENTAGES (SIMPER)

SOURCE DATA FILE : G:\K195\NOG\DG.PM1

HEADING

NUMBER OF SPECIES (ROWS) IN DATA SET = 87  
NUMBER OF COLUMNS IN DATA SET = 21

NO SPECIES REDUCTION

SPECIES NAME FILE : G:\K195\NOG\DG.LST

Groups 1-6 korresponderer hht. til årene 1990, 1991, 1992, 1993, 1994 og 1995

GROUP	SIZE	COLUMN NUMBERS
1	4	1,4,10,16
2	4	2,5,11,17
3	3	6,12,18
4	3	7,13,19
5	3	8,14,20
6	4	3,9,15,21

SQUARE ROOT TRANSFORMATION  
BRAY-CURTIS SIMILARITY

Value for percentage cutoff = 100.0

GROUP 1 AVERAGE SIMILARITY = 63.37

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	55	66.00	7.3	9.12	11.56
BRYEQ	49	43.25	6.4	9.28	10.12
POMTR	45	45.75	6.0	10.36	9.47
ECHES	63	28.50	5.1	10.51	8.10
ASCEQ	7	20.75	3.8	9.18	6.00
MEMME	54	23.50	3.4	2.22	5.34

GROUP 2 AVERAGE SIMILARITY = 65.73

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
BRYEQ	49	105.25	7.3	15.09	11.07
BRYFQ	48	51.50	4.7	5.11	7.20
ELEPI	53	30.25	4.0	6.95	6.11
ASTEQ	55	36.50	4.0	4.77	6.09
POMTR	45	34.00	3.8	13.96	5.77
ASCEQ	7	40.75	3.7	5.02	5.63
BOTRQ	9	21.50	3.3	10.99	5.04
MEMME	54	21.00	2.8	2.41	4.24

GROUP 3 AVERAGE SIMILARITY = 72.31

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
BRYEQ	49	80.33	5.9	12.27	8.23
POMTR	45	54.33	4.7	11.41	6.45
ASTEQ	55	45.00	4.7	10.36	6.45
MEMME	54	46.00	4.6	13.79	6.39
BRYFQ	48	61.00	4.6	5.10	6.38
ELEPI	53	41.33	4.2	6.28	5.86
CALLQ	66	23.67	3.0	3.76	4.16
CAMPQ	26	36.33	2.9	2.28	4.04
SPIRQ	47	33.00	2.8	5.69	3.92

GROUP 4 AVERAGE SIMILARITY = 73.58

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
BRYEQ	49	133.67	6.9	13.38	9.39	9.39
BRYFQ	48	74.33	4.5	7.70	6.18	15.56
POMTR	45	52.00	4.4	28.76	6.04	21.60
ASTEQ	55	47.67	4.0	34.94	5.40	27.01
ASCEQ	7	49.00	3.8	31.10	5.13	32.14
CAMPQ	26	36.00	3.5	6.45	4.76	36.90
ELEPI	53	32.67	3.2	6.29	4.32	41.22
CLALE	11	28.67	3.1	5.58	4.16	45.38
CRISQ	51	39.67	3.0	4.35	4.10	49.48
SPIRQ	47	25.00	2.8	27.51	3.87	53.35

GROUP 5 AVERAGE SIMILARITY = 68.98

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
BRYEQ	49	101.33	5.3	21.59	7.73	7.73
ASTEQ	55	60.00	3.9	36.94	5.71	13.44
BRYFQ	48	55.33	3.8	13.29	5.56	19.00
CRISQ	51	43.67	3.2	14.98	4.66	23.66
POMTR	45	37.33	3.2	20.15	4.63	28.30
ASCEQ	7	38.67	3.0	4.68	4.37	32.67
BALBU	41	32.33	2.7	15.85	3.97	36.64
ELEPI	53	34.67	2.7	8.34	3.93	40.57
CAMPQ	26	30.33	2.5	5.47	3.57	44.14
SPIRQ	47	24.00	2.4	24.28	3.51	47.65
BOTRQ	9	19.33	2.1	11.94	3.02	50.67

GROUP 6 AVERAGE SIMILARITY = 70.68

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
BRYEQ	49	145.25	6.3	12.23	8.95	8.95
BRYFQ	48	75.25	4.1	5.43	5.77	14.72
SPIRQ	47	52.50	3.9	8.13	5.50	20.23
ASCEQ	7	52.75	3.4	6.71	4.76	24.98
ELEPI	53	37.00	3.3	10.17	4.73	29.71
ASTEQ	55	46.00	3.3	7.53	4.70	34.41
CRISQ	51	49.25	3.2	5.95	4.50	38.91
CAMPQ	26	40.00	2.7	3.90	3.76	42.67
POMTR	45	28.75	2.6	11.67	3.73	46.40
GIBBQ	67	16.75	2.2	7.75	3.13	49.53
MEMME	54	24.75	2.1	1.90	2.91	52.44

AVERAGE DISSIMILARITY BETWEEN GROUPS 2 &amp; 1 = 41.05

SPECIES	NO	GROUP 2	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
CAMPQ	26	26.50	3.00	1.69	1.72	4.12	4.12
BRYFQ	48	51.50	17.25	1.60	1.34	3.89	8.01
BRYEQ	49	105.25	43.25	1.54	5.55	3.76	11.77
PLUMQ	29	11.25	.00	1.35	3.85	3.30	15.07
CRISQ	51	28.75	11.50	1.24	1.35	3.01	18.08
APLPU	80	.00	13.50	1.23	1.42	3.00	21.08
ELEPI	53	30.25	14.00	1.21	1.38	2.94	24.02
CLALE	11	9.75	14.75	1.19	1.68	2.91	26.93

AVERAGE DISSIMILARITY BETWEEN GROUPS 3 &amp; 1 = 38.18

SPECIES	NO	GROUP 3	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
CAMPQ	26	36.33	3.00	1.87	1.79	4.90	4.90
SPIRQ	47	33.00	3.00	1.80	1.54	4.71	9.61
BRYFQ	48	61.00	17.25	1.74	1.45	4.56	14.17
ELEPI	53	41.33	14.00	1.48	1.41	3.88	18.05
APLPU	80	5.00	13.50	1.10	1.34	2.87	20.92
CRISQ	51	22.33	11.50	1.09	1.45	2.86	23.79
CALLQ	66	23.67	6.75	1.06	1.54	2.77	26.56

AVERAGE DISSIMILARITY BETWEEN GROUPS 3 &amp; 2 = 31.19

SPECIES	NO	GROUP 3	GROUP 2	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
SPIRQ	47	33.00	9.00	1.21	1.34	3.89	3.89
CLALE	11	22.67	9.75	1.17	1.69	3.75	7.64
SAGAQ	38	.00	8.00	1.02	4.69	3.28	10.92
CRISQ	51	22.33	28.75	.95	1.29	3.04	13.96
CAMPQ	26	36.33	26.50	.89	1.28	2.85	16.81
POLMQ	18	8.00	6.00	.86	1.31	2.77	19.58
PORIQ	19	8.67	11.00	.86	1.19	2.74	22.32
MEMME	54	46.00	21.00	.84	2.03	2.69	25.01

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 &amp; 1 = 43.23

SPECIES	NO	GROUP 4	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BRYFQ	48	74.33	17.25	1.92	1.69	4.45	4.45
BRYEQ	49	133.67	43.25	1.91	5.67	4.42	8.86
CAMPQ	26	36.00	3.00	1.86	2.73	4.30	13.16
SPIRQ	47	25.00	3.00	1.42	2.79	3.29	16.45
CRISQ	51	39.67	11.50	1.31	1.35	3.03	19.48
ELEPI	53	32.67	14.00	1.12	1.36	2.58	22.07
ASCVI	5	10.33	.25	1.07	1.96	2.48	24.55
HALEQ	28	19.00	3.50	1.06	2.29	2.46	27.00

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 &amp; 2 = 32.57

SPECIES	NO	GROUP 4	GROUP 2	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
CLALE	11	28.67	9.75	1.25	1.77	3.85	3.85
ASCVI	5	10.33	.25	.96	1.98	2.94	6.78
SAGAQ	38	.00	8.00	.95	5.01	2.91	9.69
CRISQ	51	39.67	28.75	.90	1.26	2.77	12.46
SPIRQ	47	25.00	9.00	.87	1.63	2.66	15.12
POLMQ	18	8.00	6.00	.82	1.38	2.53	17.65
ALCDI	34	12.00	8.50	.81	1.44	2.50	20.14
BOTRQ	9	5.33	21.50	.81	4.07	2.47	22.62
PORIQ	19	5.33	11.00	.79	2.86	2.43	25.05

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 &amp; 3 = 26.83

SPECIES	NO	GROUP 4	GROUP 3	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BRYEQ	49	133.67	80.33	.89	2.15	3.31	3.31
CRISQ	51	39.67	22.33	.86	1.25	3.22	6.52
APLPU	80	10.67	5.00	.81	1.09	3.02	9.54
ASCEQ	7	49.00	25.00	.74	1.23	2.76	12.30
TUBUQ	52	7.33	.00	.74	1.32	2.74	15.04
PLUMQ	29	8.33	8.67	.73	1.61	2.71	17.75
MEMME	54	23.00	46.00	.71	1.66	2.65	20.39
BRYFQ	48	74.33	61.00	.64	1.26	2.38	22.78
GIBBQ	67	9.33	3.33	.64	1.45	2.38	25.15

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 1 = 47.31

SPECIES	NO	GROUP 5	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BALBU	41	32.33	2.00	1.64	3.14	3.47	3.47
TUBUQ	52	22.67	.00	1.60	2.56	3.39	6.86
CAMPQ	26	30.33	3.00	1.50	2.20	3.16	10.02
BRYFQ	48	55.33	17.25	1.41	1.52	2.98	13.00
CRISQ	51	43.67	11.50	1.33	1.61	2.81	15.81
PHLEQ	14	18.33	.50	1.32	2.69	2.79	18.61
SPIRQ	47	24.00	3.00	1.28	2.61	2.71	21.31
ASCIQ	6	15.33	.25	1.24	2.93	2.63	23.94
BRYEQ	49	101.33	43.25	1.23	6.55	2.60	26.54

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 2 = 36.26

SPECIES	NO	GROUP 5	GROUP 2	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BALBU	41	32.33	.25	1.72	4.66	4.75	4.75
TUBUQ	52	22.67	1.75	1.23	1.84	3.39	8.14
PHLEQ	14	18.33	8.75	1.13	2.13	3.12	11.27
APLPU	80	12.33	.00	1.04	2.39	2.87	14.14
GIBBQ	67	14.67	2.25	.87	1.80	2.40	16.54
CRISQ	51	43.67	28.75	.85	1.30	2.33	18.87
LACUQ	71	11.33	.00	.83	1.15	2.28	21.16
ASCIQ	6	15.33	3.75	.81	1.70	2.24	23.40
LEUCQ	17	11.33	.50	.81	1.48	2.23	25.63

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 3 = 36.26

SPECIES	NO	GROUP 5	GROUP 3	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BALBU	41	32.33	.33	1.67	4.09	4.61	4.61
TUBUQ	52	22.67	.00	1.42	2.53	3.91	8.51
CLALE	11	.00	22.67	1.39	3.27	3.83	12.35
SAGAQ	38	10.33	.00	1.00	6.31	2.75	15.09
PHLEQ	14	18.33	2.00	.95	1.80	2.61	17.70
ASCIQ	6	15.33	1.00	.91	2.50	2.52	20.22
APLPU	80	12.33	5.00	.85	1.72	2.33	22.56
GIBBQ	67	14.67	3.33	.84	1.59	2.32	24.87
LACUQ	71	11.33	.00	.81	1.13	2.24	27.11

AVERAGE DISSIMILARITY BETWEEN GROUPS 5 &amp; 4 = 33.01

SPECIES	NO	GROUP 5	GROUP 4	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
CLALE	11	.00	28.67	1.57	6.83	4.75	4.75
BALBU	41	32.33	4.00	1.10	3.27	3.32	8.07
PHLEQ	14	18.33	.67	1.01	2.48	3.07	11.14
SAGAQ	38	10.33	.00	.93	6.92	2.83	13.97
TUBUQ	52	22.67	7.33	.77	1.28	2.33	16.29
LACUQ	71	11.33	.33	.73	1.18	2.21	18.50
APLPU	80	12.33	10.67	.72	1.59	2.18	20.68
LEUCQ	17	11.33	1.67	.70	1.64	2.11	22.79
GIBBQ	67	14.67	9.33	.65	1.55	1.96	24.75
ASCVI	5	1.33	10.33	.64	1.60	1.93	26.68

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 &amp; 1 = 46.44

SPECIES	NO	GROUP 6	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
SPIRQ	47	52.50	3.00	2.17	3.99	4.68	4.68
BRYEQ	49	145.25	43.25	1.95	4.51	4.19	8.87
BRYFQ	48	75.25	17.25	1.79	1.65	3.86	12.73
CAMPQ	26	40.00	3.00	1.77	1.89	3.81	16.54
CRISQ	51	49.25	11.50	1.44	1.61	3.09	19.63
PROSQ	78	15.75	.00	1.42	2.38	3.06	22.70
LEUCQ	17	17.00	.00	1.25	1.95	2.70	25.39

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 &amp; 2 = 35.81

SPECIES	NO	GROUP 6	GROUP 2	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
SPIRQ	47	52.50	9.00	1.53	2.79	4.27	4.27
APLPU	80	16.00	.00	1.25	4.79	3.50	7.77
PROSQ	78	15.75	1.50	1.07	1.75	2.99	10.76
TUBUQ	52	17.75	1.75	1.00	1.53	2.80	13.56
BALBU	41	13.50	.25	.99	1.71	2.77	16.33
LEUCQ	17	17.00	.50	.97	1.55	2.72	19.04
CRISQ	51	49.25	28.75	.96	1.39	2.69	21.73
GIBBQ	67	16.75	2.25	.95	2.52	2.65	24.38
CLALE	11	15.25	9.75	.91	1.53	2.54	26.92

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 &amp; 3 = 32.89

SPECIES	NO	GROUP 6	GROUP 3	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
PROSQ	78	15.75	.67	1.09	2.08	3.31	3.31
TUBUQ	52	17.75	.00	1.08	1.52	3.27	6.58
BRYEQ	49	145.25	80.33	.97	1.96	2.94	9.52
BALBU	41	13.50	.33	.96	1.67	2.93	12.45
APLPU	80	16.00	5.00	.94	1.71	2.86	15.31
CRISQ	51	49.25	22.33	.94	1.38	2.86	18.17
OPHIQ	61	14.50	2.00	.94	1.72	2.84	21.01
GIBBQ	67	16.75	3.33	.89	1.85	2.69	23.71
METSE	37	6.00	.00	.79	4.43	2.39	26.10

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 &amp; 4 = 28.54

SPECIES	NO	GROUP 6	GROUP 4	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
PROSQ	78	15.75	4.00	.87	1.46	3.04	3.04
OPHIQ	61	14.50	3.00	.83	1.64	2.93	5.97
LEUCQ	17	17.00	1.67	.79	1.44	2.77	8.74
APLPU	80	16.00	10.67	.79	1.96	2.77	11.52
TUBUQ	52	17.75	7.33	.74	1.35	2.58	14.10
METSE	37	6.00	.00	.74	4.79	2.58	16.67
CLALE	11	15.25	28.67	.71	1.14	2.48	19.16
SYCOQ	20	10.25	.33	.68	1.23	2.39	21.55
SPIRQ	47	52.50	25.00	.68	2.61	2.38	23.93
BALBU	41	13.50	4.00	.67	3.10	2.34	26.27

AVERAGE DISSIMILARITY BETWEEN GROUPS 6 &amp; 5 = 32.03

SPECIES	NO	GROUP 6	GROUP 5	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
PHLEQ	14	1.50	18.33	.93	2.02	2.91	2.91
CLALE	11	15.25	.00	.90	1.47	2.82	5.73
SAGAQ	38	.25	10.33	.83	4.06	2.58	8.32
SERTQ	30	21.25	5.00	.78	1.56	2.44	10.76
ASCIQ	6	4.00	15.33	.72	1.50	2.24	13.00
BALBU	41	13.50	32.33	.70	1.13	2.18	15.18
TUBUQ	52	17.75	22.67	.69	1.21	2.16	17.34
LEUCQ	17	17.00	11.33	.68	1.47	2.13	19.47
LACUQ	71	1.25	11.33	.68	1.14	2.12	21.58
SPIRQ	47	52.50	24.00	.66	2.70	2.07	23.66
BOUGQ	23	8.00	5.33	.65	1.45	2.02	25.67



**“SIMPER” analyse - DYR : Området A-D**

## SIMILARITY PERCENTAGES (SIMPER)

SOURCE DATA FILE : G:\K195\NOG\GG.PM1

HEADING

NUMBER OF SPECIES (ROWS) IN DATA SET = 101  
NUMBER OF COLUMNS IN DATA SET = 79

NO SPECIES REDUCTION

SPECIES NAME FILE : G:\K195\NOG\GG.LST

Groups 1-4 korresponderer hht. til området A, B, C og D

GROUP	SIZE	COLUMN NUMBERS
1	16	1-16
2	22	17-38
3	20	39-58
4	21	59-79

SQUARE ROOT TRANSFORMATION  
BRAY-CURTIS SIMILARITY

Value for percentage cutoff = 100.0

GROUP 1 AVERAGE SIMILARITY = 59.33

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	66	70.00	7.2	6.62	12.10
ALCDI	40	42.19	5.6	3.97	9.40
POMTR	53	46.44	5.2	3.34	8.76
MARGL	69	12.94	3.0	4.21	5.07
BRYFQ	58	26.63	2.8	1.33	4.64
MYTED	101	14.00	2.6	2.33	4.32
CORPA	15	16.19	2.4	1.86	4.07
BALAQ	48	10.44	2.4	3.76	4.02

GROUP 2 AVERAGE SIMILARITY = 63.45

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	66	60.95	6.1	5.59	9.69
POMTR	53	45.77	5.7	6.01	8.91
MEMME	65	31.36	4.4	3.61	6.98
CAMPQ	32	27.09	3.8	2.72	5.91
ELEPI	63	27.41	3.4	2.22	5.43
CRISQ	61	24.41	3.0	2.41	4.75
BRYEQ	59	32.91	2.7	1.40	4.27
ASCIQ	9	32.95	2.7	1.29	4.25

GROUP 3 AVERAGE SIMILARITY = 65.69

SPECIES	AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
ASTEQ	66	50.00	5.4	8.20	8.29
POMTR	53	43.95	5.2	7.20	16.23
BRYEQ	59	57.15	5.1	4.33	7.76
ELEPI	63	38.40	4.6	3.78	7.03
MEMME	65	32.20	4.3	3.96	6.60
CRISQ	61	34.70	3.7	2.89	5.63
CAMPQ	32	30.50	3.3	2.37	5.07
BOTRQ	12	23.55	2.8	2.16	4.20

GROUP 4 AVERAGE SIMILARITY = 64.00

SPECIES		AV. ABUNDANCE	AVERAGE	RATIO	PERCENT	CUM %
BRYEQ	59	101.00	5.9	6.50	9.23	9.23
ASTEQ	66	50.10	4.4	4.02	6.91	16.14
POMTR	53	41.19	3.9	4.21	6.15	22.28
BRYFQ	58	54.67	3.8	2.57	5.89	28.17
ASCEQ	10	37.86	3.4	5.40	5.29	33.47
ELEPI	63	31.00	3.0	2.52	4.75	38.21
MEMME	65	25.76	2.8	2.45	4.32	42.54
CRISQ	61	32.14	2.5	2.00	3.89	46.43
ECHES	75	17.24	2.3	2.28	3.67	50.10

AVERAGE DISSIMILARITY BETWEEN GROUPS 2 &amp; 1 = 44.21

SPECIES	NO	GROUP 2	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
MEMME	65	31.36	9.50	1.59	1.38	3.60	3.60
ASCIQ	9	32.95	19.44	1.48	1.27	3.35	6.95
BRYEQ	59	32.91	12.31	1.44	1.46	3.26	10.21
ALCDI	40	14.14	42.19	1.34	1.97	3.04	13.25
ELEPI	63	27.41	12.50	1.31	1.28	2.96	16.21
CRISQ	61	24.41	9.69	1.29	1.43	2.91	19.12
BRYFQ	58	19.77	26.63	1.21	1.32	2.74	21.86
SPIRQ	56	16.82	6.19	1.21	1.31	2.74	24.60
CTOIN	13	1.91	13.38	1.20	1.17	2.71	27.30

AVERAGE DISSIMILARITY BETWEEN GROUPS 3 &amp; 1 = 51.39

SPECIES	NO	GROUP 3	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
ALCDI	40	6.55	42.19	2.16	2.02	4.21	4.21
BRYEQ	59	57.15	12.31	1.91	1.68	3.72	7.94
ASCEQ	10	33.40	3.38	1.80	1.55	3.50	11.44
BOTRQ	12	23.55	2.25	1.60	1.79	3.11	14.55
MEMME	65	32.20	9.50	1.58	1.42	3.08	17.63
ELEPI	63	38.40	12.50	1.57	1.36	3.06	20.69
CRISQ	61	34.70	9.69	1.55	1.49	3.01	23.71
BRYFQ	58	17.80	26.63	1.46	1.35	2.85	26.56

AVERAGE DISSIMILARITY BETWEEN GROUPS 3 &amp; 2 = 41.60

SPECIES	NO	GROUP 3	GROUP 2	AV TERM	RATIO	PERCENT	CUM %
		AV ABUN	AV ABUN				
ASCIQ	9	10.45	32.95	1.63	1.40	3.92	3.92
ASCEQ	10	33.40	4.73	1.57	1.45	3.76	7.68
BRYEQ	59	57.15	32.91	1.47	1.27	3.52	11.20
BOTRQ	12	23.55	7.41	1.31	1.51	3.15	14.36
SPIRQ	56	22.35	16.82	1.30	1.34	3.11	17.47
BRYFQ	58	17.80	19.77	1.25	1.47	3.01	20.48
CORPA	15	5.70	16.55	1.18	1.41	2.83	23.31
ALCDI	40	6.55	14.14	1.10	1.59	2.65	25.96

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 & 1 = 55.28

SPECIES	NO	GROUP 4	GROUP 1	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BRYEQ	59	101.00	12.31	2.66	2.54	4.82	4.82
ASCEQ	10	37.86	3.38	1.86	2.37	3.37	8.19
ALCDI	40	8.81	42.19	1.65	1.79	2.99	11.18
ECHES	75	17.24	1.06	1.41	2.07	2.54	13.72
CALLQ	78	14.71	.00	1.40	2.55	2.53	16.25
BRYFQ	58	54.67	26.63	1.35	1.35	2.44	18.69
CRISQ	61	32.14	9.69	1.33	1.52	2.40	21.09
SPIRQ	56	24.00	6.19	1.28	1.38	2.31	23.40
MEMME	65	25.76	9.50	1.25	1.32	2.26	25.66

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 & 2 = 48.66

SPECIES	NO	GROUP 4	GROUP 2	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BRYEQ	59	101.00	32.91	1.97	1.54	4.06	4.06
ASCEQ	10	37.86	4.73	1.58	2.04	3.25	7.30
ECHES	75	17.24	.09	1.55	2.47	3.19	10.50
ASCIQ	9	4.86	32.95	1.53	1.47	3.15	13.65
BRYFQ	58	54.67	19.77	1.42	1.58	2.92	16.57
CALLQ	78	14.71	.00	1.37	2.54	2.81	19.38
SPIRQ	56	24.00	16.82	1.20	1.34	2.46	21.84
CLALE	14	14.90	.00	1.17	1.30	2.40	24.25
HENSA	68	9.71	.00	1.16	2.82	2.38	26.63

AVERAGE DISSIMILARITY BETWEEN GROUPS 4 & 3 = 44.12

SPECIES	NO	GROUP 4	GROUP 3	AV TERM	RATIO	PERCENT	CUM %
		=====	=====				
		AV ABUN	AV ABUN				
BRYFQ	58	54.67	17.80	1.72	1.60	3.89	3.89
ECHES	75	17.24	.70	1.42	2.22	3.22	7.11
CALLQ	78	14.71	.00	1.34	2.56	3.05	10.16
BRYEQ	59	101.00	57.15	1.19	1.52	2.70	12.86
HENSA	68	9.71	.00	1.14	2.86	2.58	15.44
CLALE	14	14.90	.50	1.13	1.30	2.57	18.01
LEUCQ	20	5.43	16.40	1.11	1.62	2.51	20.51
ASCEQ	10	37.86	33.40	1.09	1.41	2.47	22.99
SPIRQ	56	24.00	22.35	1.05	1.29	2.37	25.36

**“ANOSIM” analyse - DYR : Området A**

## ONE-WAY ANOSIM

Date: 23/10/1996

Similarity matrix: G:\K195\NOG\AG.SIM

Groups 1-6 korresponderer hht. til årene 1990, 1991, 1992, 1993, 1994 og 1995

Group	Size	Samples
1	3	1,4,10
2	2	5,11
3	2	6,12
4	2	7,13
5	3	2,8,14
6	4	3,9,15,16

Number of samples used: 16 from a possible 16

## GLOBAL TEST

Sample statistic (Global R): 0.351

Number of permutations: 5000 (RANDOM SAMPLE FROM APPROX 2.523D+08)

Number of permuted statistics greater than or equal to global R: 32

Significance level of sample statistic: 0.7%

## PAIRWISE TESTS

Groups Used	Stat Value	Possible Permutations	Permutations Used	Significant Statistics	Significance Level
( 1, 2)	-0.250	10	10	9	90.0%
( 1, 3)	-0.250	10	10	9	90.0%
( 1, 4)	-0.167	10	10	9	90.0%
( 1, 5)	0.074	10	10	5	50.0%
( 1, 6)	0.500	35	35	1	2.9%
( 2, 3)	0.000	3	3	2	66.7%
( 2, 4)	0.250	3	3	1	33.3%
( 2, 5)	0.833	10	10	1	10.0%
( 2, 6)	0.964	15	15	1	6.7%
( 3, 4)	0.250	3	3	2	66.7%
( 3, 5)	0.667	10	10	1	10.0%
( 3, 6)	0.643	15	15	1	6.7%
( 4, 5)	0.250	10	10	2	20.0%
( 4, 6)	-0.036	15	15	7	46.7%
( 5, 6)	0.519	35	35	2	5.7%

NB: The significance levels in the pairwise tests are NOT adjusted to allow for multiple comparisons.

**“ANOSIM” analyse - DYR : Området B**

## ONE-WAY ANOSIM

Date: 22/10/1996

Similarity matrix: G:\K195\NOG\BG.SIM

Groups 1-6 korresponderer hht. til årene 1990, 1991, 1992, 1993, 1994 og 1995

Group	Size	Samples
1	4	1,7,13,19
2	4	2,8,14,20
3	3	3,9,15
4	3	4,10,16
5	3	5,11,17
6	4	6,12,18,21

Number of samples used: 21 from a possible 21

## GLOBAL TEST

Sample statistic (Global R): 0.535

Number of permutations: 5000 (RANDOM SAMPLE FROM APPROX 4.753D+11)

Number of permuted statistics greater than or equal to global R: 0

Significance level of sample statistic: 0.0%

## PAIRWISE TESTS

Groups Used	Stat Value	Possible Permutations	Permutations Used	Significant Statistics	Significance Level
( 1, 2)	0.448	35	35	1	2.9%
( 1, 3)	0.926	35	35	1	2.9%
( 1, 4)	0.463	35	35	3	8.6%
( 1, 5)	0.815	35	35	1	2.9%
( 1, 6)	0.615	35	35	1	2.9%
( 2, 3)	0.611	35	35	1	2.9%
( 2, 4)	0.370	35	35	2	5.7%
( 2, 5)	0.963	35	35	1	2.9%
( 2, 6)	0.615	35	35	1	2.9%
( 3, 4)	0.667	10	10	1	10.0%
( 3, 5)	0.926	10	10	1	10.0%
( 3, 6)	0.870	35	35	1	2.9%
( 4, 5)	0.296	10	10	3	30.0%
( 4, 6)	0.111	35	35	12	34.3%
( 5, 6)	0.370	35	35	3	8.6%

NB: The significance levels in the pairwise tests are NOT adjusted to allow for multiple comparisons.

## “ANOSIM” analyse - DYR : Området C

### ONE-WAY ANOSIM

Date: 22/10/1996

Similarity matrix: G:\K195\NOG\CG.SIM

Groups 1-6 korresponderer hht. til årene 1990, 1991, 1992, 1993, 1994 og 1995

Group	Size	Samples
1	4	1,7,13,19
2	4	2,8,14,20
3	3	3,9,15
4	3	4,10,16
5	3	5,11,17
6	4	6,12,18,21

Number of samples used: 21 from a possible 21

### GLOBAL TEST

Sample statistic (Global R): 0.151

Number of permutations: 5000 (RANDOM SAMPLE FROM APPROX 4.753D+11)

Number of permuted statistics greater than or equal to global R: 529

Significance level of sample statistic: 10.6%

### PAIRWISE TESTS

Groups Used	Stat Value	Possible Permutations	Permutations Used	Significant Statistics	Significance Level
( 1, 2)	0.104	35	35	12	34.3%
( 1, 3)	-0.148	35	35	28	80.0%
( 1, 4)	0.352	35	35	4	11.4%
( 1, 5)	0.037	35	35	18	51.4%
( 1, 6)	0.406	35	35	2	5.7%
( 2, 3)	0.204	35	35	7	20.0%
( 2, 4)	0.333	35	35	4	11.4%
( 2, 5)	0.093	35	35	13	37.1%
( 2, 6)	0.219	35	35	6	17.1%
( 3, 4)	0.185	10	10	5	50.0%
( 3, 5)	-0.222	10	10	7	70.0%
( 3, 6)	0.130	35	35	11	31.4%
( 4, 5)	0.222	10	10	3	30.0%
( 4, 6)	0.167	35	35	11	31.4%
( 5, 6)	0.130	35	35	11	31.4%

NB: The significance levels in the pairwise tests are NOT adjusted to allow for multiple comparisons.

**“ANOSIM” analyse - DYR : Området D**

## ONE-WAY ANOSIM

Date: 23/10/1996

Similarity matrix: G:\K195\NOG\DG.SIM

Groups 1-6 korresponderer hht. til årene 1990, 1991, 1992, 1993, 1994 og 1995

Group	Size	Samples
1	4	1, 4, 10, 16
2	4	2, 5, 11, 17
3	3	6, 12, 18
4	3	7, 13, 19
5	3	8, 14, 20
6	4	3, 9, 15, 21

Number of samples used: 21 from a possible 21

## GLOBAL TEST

Sample statistic (Global R): 0.383

Number of permutations: 5000 (RANDOM SAMPLE FROM APPROX 4.753D+11)

Number of permuted statistics greater than or equal to global R: 0

Significance level of sample statistic: 0.0%

## PAIRWISE TESTS

Groups Used	Stat Value	Possible Permutations	Permutations Used	Significant Statistics	Significance Level
( 1, 2)	0.458	35	35	1	2.9%
( 1, 3)	0.333	35	35	3	8.6%
( 1, 4)	0.685	35	35	1	2.9%
( 1, 5)	0.833	35	35	1	2.9%
( 1, 6)	0.833	35	35	1	2.9%
( 2, 3)	-0.111	35	35	23	65.7%
( 2, 4)	0.130	35	35	11	31.4%
( 2, 5)	0.352	35	35	4	11.4%
( 2, 6)	0.427	35	35	3	8.6%
( 3, 4)	-0.037	10	10	8	80.0%
( 3, 5)	0.815	10	10	1	10.0%
( 3, 6)	0.481	35	35	2	5.7%
( 4, 5)	0.630	10	10	1	10.0%
( 4, 6)	-0.093	35	35	23	65.7%
( 5, 6)	0.259	35	35	6	17.1%

NB: The significance levels in the pairwise tests are NOT adjusted to allow for multiple comparisons.

**“ANOSIM” analyse - DYR : Området A-D**

## ONE-WAY ANOSIM

Date: 31/10/1996

Similarity matrix: G:\K195\NOG\GG.SIM

Groups 1-4 korresponderer hht. til området A, B, C og D

Group	Size	Samples
1	16	1-16
2	22	17-38
3	20	39-58
4	21	59-79

Number of samples used: 79 from a possible 79

## GLOBAL TEST

Sample statistic (Global R): 0.645

Number of permutations: 5000 (RANDOM SAMPLE FROM APPROX 3.060D+44)

Number of permuted statistics greater than or equal to global R: 0

Significance level of sample statistic: 0.0%

## PAIRWISE TESTS

Groups Used	Stat Value	Possible Permutations	Permutations Used	Significant Statistics	Significance Level
( 1, 2)	0.388	2.224D+10	5000	0	0.0%
( 1, 3)	0.776	7.308D+09	5000	0	0.0%
( 1, 4)	0.874	1.288D+10	5000	0	0.0%
( 2, 3)	0.472	5.138D+11	5000	0	0.0%
( 2, 4)	0.777	1.052D+12	5000	0	0.0%
( 3, 4)	0.667	2.691D+11	5000	0	0.0%

NB: The significance levels in the pairwise tests are NOT adjusted to allow for multiple comparisons.



## Transektregistreringer - Dyr

## ARTSLISTER - DYR

E = Eiertaxa (Se Pedersen et al. 1995b)

M= Morfologi  
 K= kolonidannende  
 S= solitære (enslige dyr)

N = Næringsopptak  
 F= filtrerende  
 R= rovdyr  
 A = algeetnde / beitende

G= Grupperinger under bearbeidelse av multivariate analyser

A = Hovedområde A m/forekomst innen området i 0-24m dyp

B = Hovedområde B m/forekomst innen området i 0-24m dyp

C = Hovedområde C m/forekomst innen området i 0-24m dyp

D = Hovedområde D m/forekomst innen området i 0-24m dyp

TOT = Samlet forekomst for art/taxa over alle områder

Kode	Latinsk navn	M	N	E	G	A	B	C	D	TOT
ABIAB	Abietinaria abietina	K	F	356	SERTQ	0	0	39	9	48
ABIFI	Abietinaria filicula	K	F	356	SERTQ	0	0	0	10	10
ACASC	Acanthocottus scorpius	S	R	790	OSTEQ	0	0	0	1	1
ACMAZ	Acmaea sp.	S	A	451	ACMAQ	5	4	2	0	11
ACMTE	Acmaea tessulata	S	A	451	ACMAQ	6	4	2	8	20
ACMVI	Acmaea virginea	S	A	451	ACMAQ	10	3	1	6	20
ACTEQ	Actinia equina	S	F	373		25	4	1	22	52
ACTIX	Actiniaria indet.	S	F	373	ACTIQ	22	31	37	26	116
ACTIZ	Actinia sp.	S	F	373	ACTIQ	0	0	4	6	10
ADALO	Adalaria lovenii	S	R	461	OPISQ	3	0	0	0	3
ADAPR	Adalaria proxima	S	R	461	OPISQ	5	0	0	0	5
AEOPA	Aeolidia papillosa	S	R	461	OPISQ	1	0	1	0	2
ALCDI	Alcyonium digitatum	K	F	716	ALCDQ	675	306	140	186	1307
ALCDP	Alcyonidium diaphanum	K	F	716	ALCDQ	15	8	1	0	24
ALCDZ	Alcyonidium sp.	K	F	716	ALCDQ	6	0	0	4	10
ALCHI	Alcyonidium hirsutum	K	F	716	ALCDQ	1	5	52	8	66
ALCPA	Alcyonidium parasiticum	K	F	373		0	0	1	0	1
AMPFL	Amphiblestrum flemingii	K	F	719	BRYEQ	0	0	2	0	2
AMPFU	Amphilectus fucorum	K	F	340	PORIQ	0	0	6	0	6
AMPHX	Amphipoda indet.	S	A	579	AMPHQ	0	0	0	11	11
AMPXT	Amphipoda indet.: tube	S	A	579	AMPHQ	0	0	0	1	1
ANOEP	Anomia ephippium	S	F	489	ANOMQ	0	9	0	1	10
ANOMX	Anomoniidae indet.	S	F	489	ANOMQ	2	6	0	4	12

Kode	Latinsk navn	M	N	E	G	A	B	C	D	TOT
ANTBI	<i>Antedon bifida</i>	S	F	752	ANTEQ	2	11	0	0	13
ANTPE	<i>Antedon petasus</i>	S	F	752	ANTEQ	0	1	0	0	1
APLGL	<i>Aplidium glabrum</i>	K	F	775	ASCEQ	0	0	59	57	116
APLNO	<i>Aplidium nordmanni</i>	K	F	775	ASCEQ	0	0	25	28	53
APLPA	<i>Aplidium pallidum</i>	K	F	775	ASCEQ	0	0	22	14	36
APLPR	<i>Aplidium proliferum</i>	K	F	775	ASCEQ	0	0	12	31	43
APLPU	<i>Aplysia punctata</i>	S	R	461		1	0	1	202	204
APLSU	<i>Aplysilla sulfurea</i>	K	F	340	HALIQ	0	0	4	0	4
ARCPS	<i>Archidoris pseudoargus</i>	S	R	461	OPISQ	0	3	6	2	11
ASCAS	<i>Asciidiella aspersa</i>	S	F	775		207	474	81	59	821
ASCIX	<i>Asciidiacea indet.</i>	S	F	775	PHLEQ	0	27	13	46	86
ASCIZ	<i>Asciidiella sp.</i>	S	F	775	PHLEQ	61	89	16	0	166
ASCME	<i>Ascidia mentula</i>	S	F	775		113	220	15	13	361
ASCOB	<i>Ascidia obliqua</i>	S	F	775	PHLEQ	12	0	1	0	13
ASCPR	<i>Ascidia prunum</i>	S	F	775	ASCEQ	0	0	1	0	1
ASCSC	<i>Asciidiella scabra</i>	S	F	775	ASCIQ	43	162	119	44	368
ASCVI	<i>Ascidia virginea</i>	S	F	775	ASCIQ	124	194	5	58	381
ASCXE	<i>Asciidiacea indet.: encrusting</i>	K	F	775	ASCIQ	10	11	10	0	31
ASTRU	<i>Asterias rubens</i>	S	R	725	ASTEQ	1120	1293	1048	1052	4513
BALAZ	<i>Balanus sp.</i>	S	F	553	BALAQ	7	17	6	11	41
BALBO	<i>Balanus balanoides</i>	S	F	553		81	75	80	201	437
BALBU	<i>Balanus balanus</i>	S	F	553	BALAQ	56	110	75	173	414
BALCR	<i>Balanus crenatus</i>	S	F	553	BALAQ	70	11	21	0	102
BALIM	<i>Balanus improvisus</i>	S	F	553	BALAQ	9	8	8	0	25
BERPA	<i>Berenicea patina</i>	K	F	715	TUBUQ	1	56	4	26	87
BERPL	<i>Berthella plumula</i>	S	R	461	OPISQ	0	0	1	3	4
BICCI	<i>Bicelliariella ciliata</i>	K	F	719	BRYFQ	7	0	0	21	28
BITRE	<i>Bittium reticulatum</i>	S	R	451	PROSQ	0	0	0	7	7
BIVAX	<i>Bivalvia indet.</i>	S	F	489	BIVAQ	0	0	5	1	6
BOLEC	<i>Boltenia echinata</i>	K	F	373		59	70	49	47	225
BOLTU	<i>Bolocera tuediae</i>	S	F	775		0	0	0	2	2
BOTDZ	<i>Botrylloides sp.</i>	K	F	775	BOTRQ	0	0	0	4	4
BOTLE	<i>Botrylloides leachi</i>	K	F	775	BOTRQ	7	36	201	60	304
BOTSC	<i>Botryllus schlosseri</i>	K	F	775	BOTRQ	32	79	318	268	697
BRYXB	<i>Bryozoa indet. filamentous</i>	K	F	713	BRYEQ	18	24	24	0	66
BRYXE	<i>Bryozoa indet. encrusting</i>	K	F	713	BRYFQ	21	75	52	101	249
BUCUE	<i>Buccinum undatum: eggmass</i>	S	R	451	PROSQ	0	0	0	1	1
BUCUN	<i>Buccinum undatum</i>	S	R	451		0	0	3	1	4
BUGFL	<i>Bugula flabellata</i>	K	F	719	BRYFQ	0	1	0	0	1
BUGPL	<i>Bugula plumosa</i>	K	F	719	BRYFQ	14	0	0	0	14
BUGPU	<i>Bugula purpurotincta</i>	K	F	719	BRYFQ	62	40	0	0	102
CALDU	<i>Callopora dumerilii</i>	K	F	451	CALLQ	0	1	0	0	1
CALLI	<i>Callopora lineata</i>	K	F	719	BRYEQ	6	130	81	108	325
CALZI	<i>Calliostoma zizyphinum</i>	S	A	719	BRYEQ	0	0	1	309	310
CAMAX	<i>Camardonta indet.</i>	S	?	735	CAMAQ	0	0	0	1	1
CAMHI	<i>Campanularia hincksi</i>	K	F	356	CAMPQ	0	0	0	8	8
CAMIN	<i>Campanularia integra</i>	K	F	356	CAMPQ	0	0	20	34	54
CAMJO	<i>Campanularia johnstoni</i>	K	F	356	CAMPQ	2	20	88	126	236
CAMPZ	<i>Campanularia sp.</i>	K	F	356	CAMPQ	0	1	14	7	22

Kode	Latinsk navn	M	N	E	G	A	B	C	D	TOT
CANPA	Cancer pagurus	S	R	583		34	13	129	57	233
CAPLI	Caprella linearis	S	R	579	CAPRQ	42	0	0	0	42
CARSM	Caryophyllia smithii	S	F	373		75	18	1	0	94
CELHA	Celleporina hassallii	K	F	719	BRYEQ	16	1	65	227	309
CELHY	Celleporella hyalina	K	F	717	BRYEQ	62	153	169	427	811
CELPV	Cellepora pumicosa	K	F	717	BRYEQ	0	20	73	127	220
CELSI	Cellaria sinuosa	K	F	717	BRYEQ	0	0	0	34	34
CHAVA	Chaetopterus variopedatus	S	F	426		0	0	0	2	2
CHITX	Polyplacophora indet.	S	A	775		2	4	0	10	16
CIOIN	Ciona intestinalis	S	F	775		214	45	24	24	307
CLALE	Clavelina lepadiformis	K	F	775		0	0	10	313	323
CORLI	Coryphella lineata	S	R	579	AMPHQ	2	0	0	2	4
COROZ	Corophium sp.	S	A	461		6	0	4	6	16
CORPA	Corella parallelogramma	S	F	461	OPISQ	259	364	116	66	805
CORPE	Coryphella pedata	S	R	461	OPISQ	0	0	0	2	2
CORVE	Coryphella verrucosa	S	R	720		26	7	0	2	35
CRAAN	Crania anomala	S	F	717	BRYEQ	43	66	0	0	109
CRIAC	Crisia aculeata	K	F	717	BRYEQ	0	0	2	24	26
CRIAN	Cribrilina annulata	K	F	715	CRISQ	0	92	13	0	105
CRICO	Crisidia cornuta	K	F	715	CRISQ	2	1	143	138	284
CRIDE	Crisia denticulata	K	F	715	CRISQ	0	0	1	32	33
CRIEB	Crisia eburnea	K	F	715	CRISQ	143	453	460	302	1358
CRIKL	Crisia kluegi	K	F	715	CRISQ	0	0	0	29	29
CRIPR	Crisiella producta	K	F	715	CRISQ	3	15	25	52	95
CRIPU	Cribrilina punctata	K	F	715	CRISQ	0	16	1	0	17
CRIRA	Crisia ramosa	K	F	715	CRISQ	13	22	21	21	77
CRISX	Crisiidae indet.	K	F	715	CRISQ	0	0	0	14	14
CRISZ	Crisia sp.	K	F	725		0	20	80	55	155
CROPA	Crossaster papposus	S	R	717	BRYEQ	2	5	0	53	60
CRYPV	Cryptosula pallasiana	K	F	719	BRYFQ	1	19	1	0	21
DENFR	Dendronotus frondosus	S	R	775		0	0	10	0	10
DENGR	Dendrodoa grossularia	S	F	461	OPISQ	49	169	222	6	446
DENMU	Dendrobeatia murrayana	K	F	340	HALIQ	0	41	36	115	192
DESFR	Desmacion fruticosum	K	F	775	ASCEQ	0	0	6	1	7
DIDCA	Didemnum candidum	K	F	775	ASCEQ	0	0	0	26	26
DIDEZ	Didemnum sp.	K	F	775	ASCEQ	0	0	1	0	1
DIDHE	Didemnum helgolandicum	K	F	356	SERTQ	0	5	1	11	17
DIPFA	Diphasia fallax	K	F	356	SERTQ	0	0	5	15	20
DIPLI	Diplosoma listerianum	K	F	356	SERTQ	16	52	188	95	351
DIPPI	Diphasia pinaster	K	F	775	ASCEQ	0	0	12	0	12
DIPRO	Diphasia rosacea	K	F	715	TUBUQ	0	0	1	43	44
DISHI	Disporella hispida	K	F	461	OPISQ	0	11	0	5	16
DORIX	Dorididae indet.	S	R	461	OPISQ	0	0	1	0	1
DOTCO	Doto coronata	S	R	461	OPISQ	0	0	1	0	1
DOTPI	Doto pinnatifida	S	R	356		0	0	0	2	2
DYNPU	Dynamena pumila	K	F	735		1	9	128	40	178
ECHAC	Echinus acutus	S	A	735		1	1	1	0	3
ECHES	Echinus esculentus	S	A	719		22	2	23	362	409
EGGBA	Invertebrate egg mass: band	?	?	717	BRYEQ	10	0	11	17	38

Kode	Latinsk navn	M	N	E	G	A	B	C	D	TOT
EGGMA	Invertebrate egg mass	?	?	717	BRYEQ	0	54	25	15	94
EGGRI	Invertebrate egg mass: ring	?	?	717	BRYEQ	0	0	0	20	20
ELEPI	Electra pilosa	K	F	717	BRYEQ	200	565	806	651	2222
ESCCO	Escharoides coccinea	K	F	717	BRYEQ	0	0	0	285	285
ESCIM	Escharella immersa	K	F	461	OPISQ	17	18	14	2	51
ESCLA	Escharella labiosa	K	F	352	BOUGQ	0	17	0	0	17
ESCMA	Eschariodes mamillata	K	F	352	BOUGQ	0	0	0	6	6
ESCVA	Escharella variolosa	K	F	352	BOUGQ	0	0	0	1	1
EUBTR	Eubranchus tricolor	S	R	461	OPISQ	2	0	0	0	2
EUDAN	Eudendrium annulatum	K	F	461	OPISQ	0	0	2	36	38
EUDRA	Eudendrium ramosum	K	F	717	BRYEQ	0	0	0	33	33
EUDRE	Eudendrium rameum	K	F	715	CRISQ	0	1	6	16	23
FACAU	Facelina auriculata	S	R	426		0	0	0	1	1
FACEZ	Facelina sp.	S	R	719		0	1	0	0	1
FENMA	Fenestrulina malusii	K	F	583	GALAQ	0	0	0	1	1
FILGE	Filicrisia geniculata	K	F	451	GIBBQ	0	1	0	20	21
FILIM	Filograna implexa	S	F	451	GIBBQ	0	0	7	80	87
FLUFO	Flustra foliacea	K	F	373		107	63	0	0	170
GALST	Galathea strigosa	S	R	356	HALEQ	4	8	22	53	87
GIBBZ	Gibbula sp.	S	A	356	HALEQ	0	1	0	0	1
GIBCI	Gibbula cineraria	S	A	356	HALEQ	6	121	202	168	497
GONPR	Gonactinia prolifera	S	F	356	HALEQ	12	12	0	10	34
HALAR	Halecium articulatum	K	F	340	HALIQ	33	1	0	0	34
HALBE	Halecium beani	K	F	725		0	5	0	1	6
HALHA	Halecium halecinum	K	F	461	OPISQ	139	125	35	211	510
HALMU	Halecium muricatum	K	F	489	ANOMQ	0	0	109	25	134
HALPA	Halichondria panicea	K	F	489		184	133	273	100	690
HENSA	Henricia sanguinolenta	S	R	583		2	0	2	204	208
HERDE	Hermaea dendritica	S	A	583	HYASQ	0	0	0	1	1
HETSQ	Heteranomia squamula	S	F	583	HYASQ	0	2	3	2	7
HIAAR	Hiatella arctica	S	F	583	HYASQ	0	0	2	11	13
HOMGA	Homarus gammarus	S	R	356	PLUMQ	0	1	0	0	1
HYAAR	Hyas araneus	S	R	351		2	2	0	1	5
HYACO	Hyas coarctatus	S	R	351		2	0	0	0	2
HYASZ	Hyas sp.	S	R	426	POLCQ	1	1	0	1	3
HYDFA	Hydrallmania falcata	K	F	340	HYMEQ	32	6	15	30	83
HYDNO	Hydroides norvegica	S	F	340	HYMEQ	26	5	11	7	49
HYDRX	Hydroidea indet.	K	F	451		0	0	12	20	32
HYDXB	Hydroidea indet.: filamentous	K	F	451		8	0	0	5	13
HYMMA	Hymedesmia mammillaris	K	F	451		59	80	14	20	173
HYMPA	Hymedesmia paupertas	K	F	579	AMPHQ	6	41	0	24	71
JASFA	Jassa falcata	S	R	461	OPISQ	0	0	0	19	19
JORTO	Jorunna tomentosa	S	R	356	PLUMQ	0	0	1	0	1
KIRPI	Kirchenpaueria pinnata	K	F	451	LACUQ	50	67	5	102	224
LACPA	Lacuna parva	S	A	451	LACUQ	18	0	0	20	38
LACPL	Lacuna pallidula	S	A	451	LACUQ	8	0	0	0	8
LACUZ	Lacuna sp.	S	A	451	LACUQ	0	1	1	0	2
LACVI	Lacuna vincta	S	A	451	PROSQ	0	10	8	21	39
LAMLA	Lamellaria latens	S	R	356	CAMPQ	0	0	0	1	1

Kode	Latinsk navn	M	N	E	G	A	B	C	D	TOT
LAODI	<i>Laomedea dichotoma</i>	K	F	356	CAMPQ	0	38	0	0	38
LAOFL	<i>Laomedea flexuosa</i>	K	F	356	CAMPQ	23	0	2	1	26
LAOGC	<i>Laomedea geniculata</i>	K	F	356	CAMPQ	151	429	496	361	1437
LAOGL	<i>Laomedea gelatinosa</i>	K	F	356	CAMPQ	24	23	1	0	48
LAOGR	<i>Laomedea gracilis</i>	K	F	356	CAMPQ	1	14	5	7	27
LAOHY	<i>Laomedea hyalina</i>	K	F	356	CAMPQ	11	0	0	0	11
LAOLO	<i>Laomedea longissima</i>	K	F	356	CAMPQ	42	40	11	29	122
LAOLV	<i>Laomedea loveni</i>	K	F	356	CAMPQ	6	0	0	0	6
LAOMZ	<i>Laomedea sp.</i>	K	F	356	CAMPQ	38	3	2	12	55
LAOPL	<i>Laomedea plicata</i>	K	F	340	LEUCQ	4	7	13	6	30
LEUBO	<i>Leucosolenia botryoides</i>	K	F	340	LEUCQ	0	0	12	6	18
LEUCM	<i>Leucosolenia complicata</i>	K	F	340	LEUCQ	84	206	165	105	560
LEUCR	<i>Leucosolenia coriacea</i>	K	F	340	LEUCQ	18	0	166	2	186
LEUCZ	<i>Leucosolenia sp.</i>	K	F	715	TUBUQ	0	1	0	4	5
LICVE	<i>Lichenopora verrucaria</i>	K	F	461	LIMAQ	2	6	36	62	106
LIMCL	<i>Limacia clavigera</i>	S	R	400	NEMEQ	5	3	8	24	40
LINLO	<i>Lineus longissimus</i>	S	R	583		0	0	0	1	1
LITLI	<i>Littorina littorea</i>	S	R	451		16	46	28	8	98
LITMA	<i>Lithodes maja</i>	S	R	451		0	0	0	1	1
LITSA	<i>Littorina saxatilis</i>	S	R	451	LITTQ	18	24	49	42	133
LITZ	<i>Littorina sp.</i>	S	R	725	ASTEQ	0	0	2	0	2
LUICI	<i>Luidia ciliaris</i>	S	R	725		0	1	0	1	2
MARGL	<i>Marthasterias glacialis</i>	S	R	719		207	244	193	41	685
MEMME	<i>Membranipora membranacea</i>	K	F	719	BRYEQ	152	650	684	541	2027
MEMNI	<i>Membraniporella nitida</i>	K	F	373		0	0	1	1	2
METSE	<i>Metridium senile</i>	S	F	717	BRYEQ	66	19	22	43	150
MICCI	<i>Microporella ciliata</i>	K	F	775	PHLEQ	5	9	38	86	138
MOLCI	<i>Molgula citrina</i>	S	F	775	PHLEQ	3	11	30	41	85
MOLGZ	<i>Molgula sp.</i>	S	F	775	PHLEQ	1	12	2	0	15
MOLMA	<i>Molgula manhattensis</i>	S	F	775	PHLEQ	9	10	3	2	24
MOLOC	<i>Molgula occulta</i>	S	F	489	ANOMQ	0	1	1	6	8
MONIZ	<i>Monia sp.</i>	S	F	489	ANOMQ	1	0	0	0	1
MONPA	<i>Monia patelliformis</i>	S	F	489	ANOMQ	5	19	11	19	54
MONSQ	<i>Monia squama</i>	S	F	583	GALAQ	0	1	3	16	20
MUNRU	<i>Munida rugosa</i>	S	R	489	MUSCQ	0	0	0	1	1
MUSMA	<i>Musculus marmoratus</i>	S	F	489		0	0	3	5	8
MYTED	<i>Mytilus edulis</i>	S	F	451	PROSQ	224	255	365	168	1012
NASIN	<i>Nassarius incrassatus</i>	S	R	451	PROSQ	0	0	16	84	100
NASPY	<i>Nassarius pygmaeus</i>	S	R	451	PROSQ	0	0	0	6	6
NASRE	<i>Nassarius reticulatus</i>	S	R	451		0	0	3	6	9
NUCEE	<i>Nucella lapillus: eggmass</i>	S	R	451		0	5	4	3	12
NUCLA	<i>Nucella lapillus</i>	S	R	461	OPISQ	13	52	62	73	200
NUDIX	<i>Nudibranchia indet.</i>	S	?	717	BRYEQ	5	1	1	1	8
OMARA	<i>Omalosecosa ramulosa</i>	K	F	461	OPISQ	0	0	0	12	12
ONCHZ	<i>Onchidoris sp.</i>	S	R	461	OPISQ	1	0	0	0	1
ONCLU	<i>Onchidoris luteocinata</i>	S	R	730		0	0	1	4	5
OPHAC	<i>Ophiopholis aculeata</i>	S	R	426		22	1	2	55	80
OPHAL	<i>Ophiura albida</i>	S	R	730	OPHIQ	39	74	1	13	127
OPHIX	<i>Ophiuroidea indet.</i>	S	R	730	OPHIQ	0	0	1	18	19

Kode	Latinsk navn	M	N	E	G	A	B	C	D	TOT
OPHSA	<i>Ophiura sarsi</i>	S	R	730	OPHIQ	0	0	0	1	1
OPHTE	<i>Ophiura texturata</i>	S	R	730	OPHIQ	0	0	0	1	1
OPMFL	<i>Ophiodromus flexuosus</i>	S	R	730	OPHIQ	0	1	0	0	1
OPNNI	<i>Ophiocomina nigra</i>	S	R	730	OPHIQ	0	0	0	1	1
OPXFR	<i>Ophiothrix fragilis</i>	S	R	583	PAGUQ	10	19	16	34	79
PAGBE	<i>Pagurus bernhardus</i>	S	R	583	PAGUQ	1	3	2	4	10
PAGUZ	<i>Pagurus sp.</i>	S	R	717	BRYEQ	0	2	6	3	11
PALSK	<i>Palmeccellaria skenei</i>	K	F	717	BRYEQ	6	0	0	0	6
PARTR	<i>Parasmittina trispinosa</i>	K	F	451	PATEQ	73	168	423	453	1117
PATAS	<i>Patella aspera</i>	S	A	451	PATEQ	0	0	16	23	39
PATEZ	<i>Patella sp.</i>	S	A	451	PATEQ	0	0	18	53	71
PATPE	<i>Patina pellucida</i>	S	A	451		1	42	37	16	96
PATVU	<i>Patella vulgata</i>	S	A	717	BRYEQ	0	0	31	28	59
PHASP	<i>Phaeostachys spinifera</i>	K	F	461	OPISQ	0	0	12	0	12
PLEME	<i>Pleurobranchus membranaceus</i>	S	R	356	PLUMQ	0	0	0	1	1
PLUSE	<i>Plumularia setacea</i>	K	F	461		0	0	0	11	11
POLAU	<i>Polyclinium aurantium</i>	K	F	426	POLSQ	2	15	80	317	414
POLBO	<i>Polymastia boletiformis</i>	K	F	775	ASCEQ	13	4	0	46	63
POLGR	<i>Polyplumaria gracillima</i>	K	F	340	POLMQ	10	8	4	6	28
POLMA	<i>Polymastia mammillaris</i>	K	F	340	POLMQ	6	31	0	77	114
POLQU	<i>Polycera quadrilineata</i>	S	R	340	POLMQ	6	0	0	0	6
POLRO	<i>Polymastia robusta</i>	K	F	449	CHITQ	6	2	0	0	8
POLSX	<i>Polychaeta sedentaria indet.</i>	S	?	356	PLUMQ	0	0	0	3	3
POMTR	<i>Pomatoceros triqueter</i>	S	F	426		743	959	927	865	3494
PORIX	Porifera indet.	K	F	725		10	56	0	37	103
PORPU	<i>Porania pulvillus</i>	S	R	340	PORIQ	12	12	18	73	115
PORXC	Porifera indet.: cylindrical	K	F	340	PORIQ	23	5	0	0	28
PORXE	Porifera indet.: encrusting	K	F	340	PORIQ	68	44	17	50	179
PORXG	Porifera indet.: globular	K	F	340	PORIQ	0	0	2	6	8
PORXO	Porifera indet.: encrusting - orange	K	F	340	PORIQ	0	14	4	14	32
PORXW	Porifera indet.: encrusting - white	K	F	340	PORIQ	0	1	4	26	31
PORXY	Porifera indet.: encrusting - yellow	K	F	340	PORIQ	0	13	7	0	20
PROSI	<i>Prostanthea simplex</i>	S	F	451	PROSQ	1	10	2	0	13
PROSX	<i>Prosobranchia indet.</i>	S	A	385		0	1	0	2	3
PROVI	<i>Prostheceraceus vittatus</i>	S	?	373		0	1	0	1	2
PSAMI	<i>Psammechinus miliaris</i>	S	A	735	CAMAQ	4	2	1	1	8
PYCLI	<i>Pycnogonum littorale</i>	S	R	524	PYCNQ	0	0	0	1	1
PYRTE	<i>Pyrua tessellata</i>	S	F	775	PHLEX	0	1	0	0	1
SABPA	<i>Sabella penicillus</i>	S	F	426		8	15	0	11	34
SAGAX	Sagartiidae indet.	S	F	373	SAGAQ	42	16	16	34	108
SAGAZ	<i>Sagartiogeton sp.</i>	S	F	373	SAGAQ	6	3	1	32	42
SALDY	<i>Salmacina dysteri</i>	S	F	426	POLYQ	0	0	0	1	1
SCCLZ	<i>Scrupocellaria sp.</i>	K	F	717	BRYEQ	27	1	0	12	40
SCCRT	<i>Scrupocellaria reptans</i>	K	F	356	PLUMQ	69	128	105	394	696
SCCSB	<i>Scrupocellaria scabra</i>	K	F	356	PLUMQ	148	117	58	111	434
SCCSE	<i>Scrupocellaria scrupea</i>	K	F	719	BRYFQ	0	0	6	21	27
SCCSP	<i>Scrupocellaria scruposa</i>	K	F	719	BRYFQ	2	31	13	316	362
SCHCA	<i>Schizotricha catharina</i>	K	F	719	BRYFQ	0	4	0	0	4
SCHFR	<i>Schizotricha frutescens</i>	K	F	719	BRYFQ	9	3	5	0	17

Kode	Latinsk navn	M	N	E	G	A	B	C	D	TOT
SCHLI	Schizomavella linearis	K	F	719	BRYFQ	0	0	2	0	2
SCRCH	Scruparia chelata	K	F	719	BRYFQ	0	0	1	8	9
SECSF	Securiflustra securifrons	K	F	719	BRYFQ	83	54	23	0	160
SERBE	Sertella beaniana	K	F	426		0	10	8	3	21
SERPX	Serpulidae indet.	S	F	426	POLCQ	0	2	0	0	2
SERVE	Serpula vermicularis	S	F	717		8	4	0	0	12
SIDNZ	Sidnyum sp.	K	F	356	SERTQ	0	0	32	0	32
SIDTU	Sidnyum turbinatum	K	F	356	SERTQ	0	0	109	157	266
SMIRE	Smittoidea reticulata	K	F	356	SERTQ	0	1	6	0	7
SOLEN	Solaster endeca	S	R	356	SERTQ	0	0	2	16	18
SPIBO	Spirorbis borealis	S	F	775	ASCEQ	47	198	204	142	591
SPIPA	Spirorbis pagenstecheri	S	F	775	ASCEQ	0	7	1	0	8
SPIRZ	Spirorbis sp.	S	F	717	BRYEQ	50	56	56	92	254
SPISP	Spirorbis spirillum	S	F	725		2	101	179	270	552
SPITR	Spirorbis tridentata	S	F	426	SPIRQ	0	6	12	2	20
SRTLZ	Sertularella sp.	K	F	426	SPIRQ	1	0	0	0	1
SRTPO	Sertularella polyzonias	K	F	426	SPIRQ	12	64	39	77	192
SRTRU	Sertularella rugosa	K	F	426	SPIRQ	0	0	70	76	146
SRTTE	Sertularella tenella	K	F	426	SPIRQ	1	1	0	0	2
STIRO	Stichastrella rosea	S	R	725		0	0	4	0	4
STOCO	Stomphia coccinea	S	F	373	ACTIQ	0	0	8	19	27
STRDR	Strongylocentrotus droebachiensis	S	A	735	CAMAQ	18	1	0	5	24
STYCO	Styela coriacea	K	F	775	PHLEQ	6	0	0	0	6
STYEX	Styelidae indet.	S	F	775	PHLEQ	0	1	1	12	14
STYEZ	Styela sp.	S	F	775	PHLEQ	0	1	1	0	2
STYRU	Styela rustica	S	F	775	PHLEQ	2	19	0	1	22
SYCCI	Sycon ciliatum	K	F	340	SYCOQ	55	90	158	69	372
SYCOZ	Sycon sp.	K	F	340	SYCOQ	1	0	0	0	1
SYNPU	Synoicum pulmonaria	K	F	775	ASCEQ	29	10	35	53	127
TERRE	Terebratulina retusa	S	F	720	TEREQ	0	1	0	0	1
TETAU	Tethya aurantium	K	F	340		0	10	0	2	12
THECI	Thelepus cinninnatus	S	F	426		0	1	0	1	2
TRGIN	Triglosa infundibuliformis	K	F	719	BRYFQ	18	0	0	0	18
TRJAR	Trivia arctica	S	R	775	ASCEQ	0	0	0	30	30
TRHO	Tritonia hombergi	S	A	340		2	0	0	0	2
TRIMO	Trivia monacha	S	R	461	OPISQ	0	0	0	2	2
TRITE	Tricellaria ternata	K	F	451	TRIVQ	0	0	95	162	257
TRITN	Trididemnum tenerum	K	F	451	TRIVQ	0	17	100	13	130
TUBAP	Tubulipora aperta	K	F	715	TUBUQ	0	15	1	4	20
TUBDI	Tubulipora dilatans	K	F	352		0	0	1	0	1
TUBIN	Tubularia indivisa	K	F	352		10	1	4	21	36
TUBLA	Tubularia larynx	K	F	352		33	4	4	5	46
TUBLI	Tubulipora liliacea	K	F	715	TUBUQ	37	55	20	1	113
TUBPE	Tubulipora penicillata	K	F	715	TUBUQ	0	14	0	0	14
TUBPH	Tubulipora phalangea	K	F	715	TUBUQ	0	0	5	0	5
TUBPL	Tubulipora plumosa	K	F	715	TUBUQ	0	0	0	12	12
TUBPZ	Tubulipora sp.	K	F	715	TUBUQ	0	18	42	70	130
TUBUZ	Tubularia sp.	K	F	715	TUBUQ	0	9	9	2	20
UMBLI	Umbonula littoralis	K	F	717	BRYEQ	0	8	217	257	482

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Kode	Latinsk navn	M	N	E	G	A	B	C	D	TOT
URTFE	Urticina felina	S	F	373		260	58	208	122	648
VELVE	Velutina velutina	S	R	451	PROSQ	0	0	1	0	1
VERST	Verruca stroemia	S	F	553	BALAQ	1	0	13	1	15
WALUV	Walkeria uva	K	F	716		0	0	1	0	1

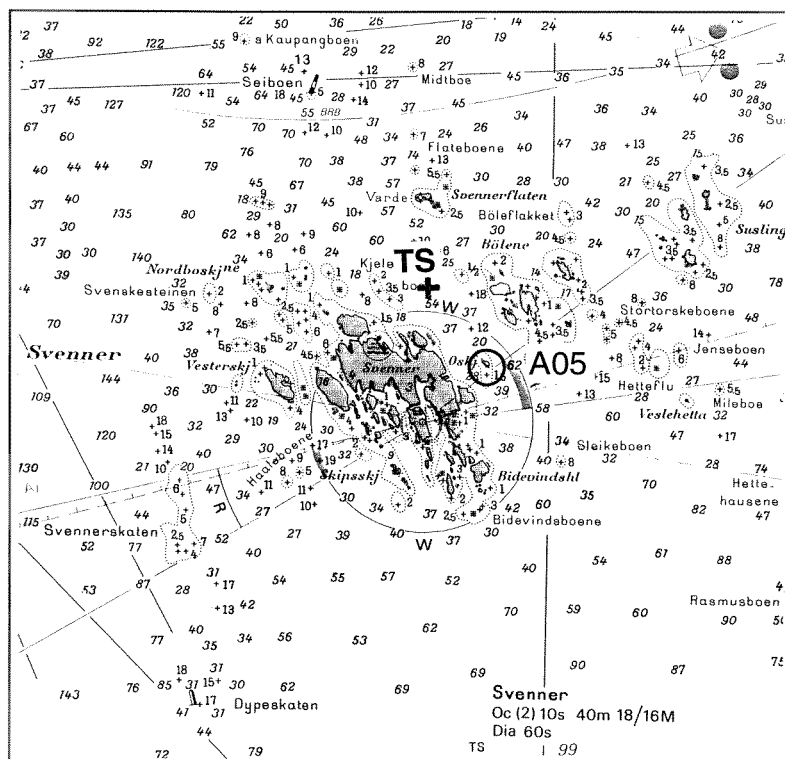




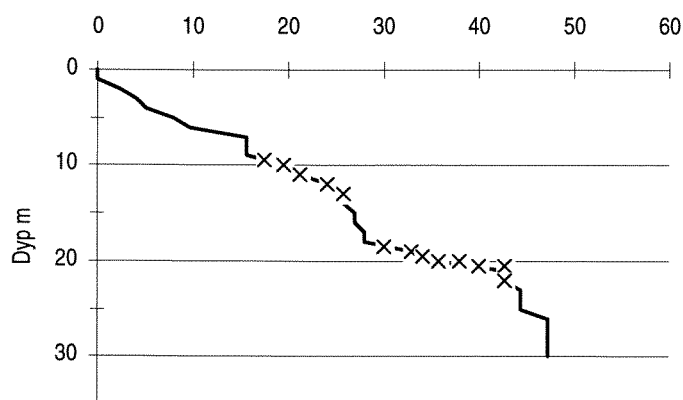
## Vedlegg E. Stasjonsbeskrivelser og tareskog

Stasjonsbeskrivelser (øvrige stasjoner er beskrevet i Pedersen et al. (1995b))

### A05 O-skjær



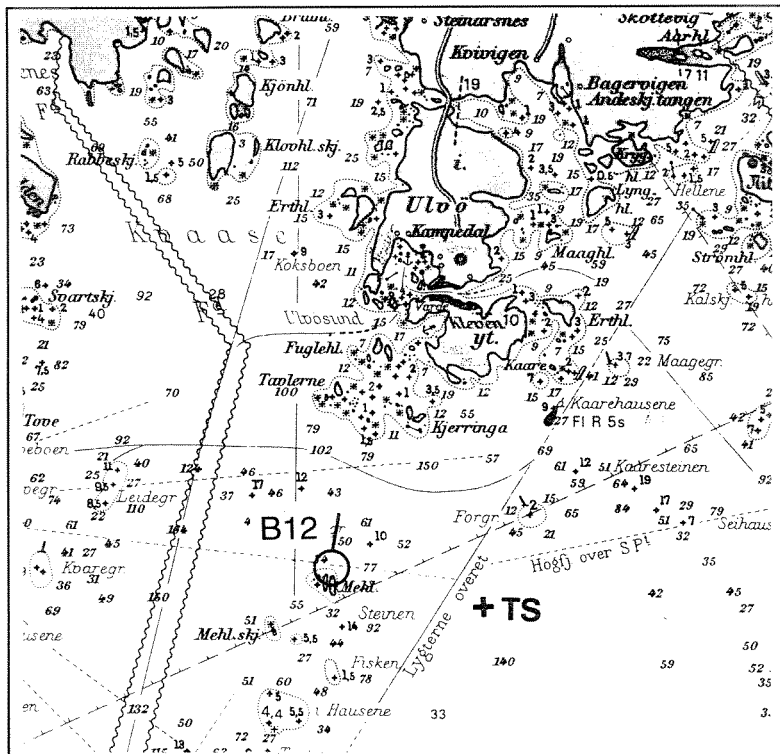
A5 O-skjær



Figur 1. Stasjonskart og bunnprofil for stasjon A05 O-skjær.

O-skjær er et lite skjær rett øst for Svener (sjøkart C-714, N 58°58.35', Ø 10°09.69'). Stasjon A05 ble etablert på O-skjær i 1995 og er derfor ny i kystovervåkingsprogrammet. Transektet er nordøstlig (30°) og består til største del av fjellbunn med steinur som på 30m dyp går over i sandbunn. Stasjonen er sterkt eksponert. Stereostasjon er etablert på en fjellvegg på 11m dyp.

## B12 Meholmen



Figur 2. Stasjonskart for stasjon B12 Meholmen.

Meholmen er tidligere undersøkt i 1990 og 1991. Stasjonen ligger i munningen av Kvaasefjorden (sjøkart D-723, N 58°05.68', Ø 08°12.65') og er sterkt eksponert og strømuttsatt. Transektretningen er nordlig (10°) og helningen på bunnen er moderat til bratt. Substratet er en blanding av kupert fjell og steinur. Stereostasjonen ligger på 6m dyp. Bunnprofil er ikke laget pga. manglende data.





**Tabell 1.** Antall tareplanter pr. m2 på 3 standardiserte dyp på 16 stasjoner undersøkt i 1995. Verdiene er gjennomsnitt av 3 registreringer pr. dyp.

Stasjonsnr	Dypnr	Kimplanter	små (-1 år)	mellomstore	store	døde planter
2	1	0,0	0,3	0,0	0,2	0,0
	2	0,0	0,7	0,6	1,7	0,0
	3	0,0	0,3	0,9	3,4	0,0
	<i>Gj.snitt</i>	<i>0,0</i>	<i>0,4</i>	<i>0,5</i>	<i>1,8</i>	<i>0,0</i>
3	1	0,0	1,0	1,9	1,8	0,0
	2	0,0	0,6	1,9	1,0	0,0
	3	0,0	0,2	2,3	5,7	0,0
	<i>Gj.snitt</i>	<i>0,0</i>	<i>0,6</i>	<i>2,1</i>	<i>2,8</i>	<i>0,0</i>
4	1	8,0	2,7	3,3	1,3	0,0
	2	1,3	1,5	3,8	5,2	0,0
	3	0,0	0,7	1,8	3,7	0,0
	<i>Gj.snitt</i>	<i>3,1</i>	<i>1,6</i>	<i>3,0</i>	<i>3,4</i>	<i>0,0</i>
5	1	0,1	0,3	0,6	1,3	0,0
	2	1,5	5,3	3,5	2,8	0,0
	3	0,0	2,0	3,7	13,7	0,0
	<i>Gj.snitt</i>	<i>0,5</i>	<i>2,5</i>	<i>2,6</i>	<i>5,9</i>	<i>0,0</i>
7	1	76,0	11,3	5,3	10,3	0,0
	2	25,3	2,3	1,8	5,8	0,0
	3	0,8	1,8	2,5	4,5	0,0
	<i>Gj.snitt</i>	<i>34,1</i>	<i>5,2</i>	<i>3,2</i>	<i>6,9</i>	<i>0,0</i>
10	1	61,3	7,7	0,3	9,2	0,0
	2	37,0	2,0	5,7	17,8	0,0
	3	12,0	6,3	3,0	5,8	0,0
	<i>Gj.snitt</i>	<i>36,8</i>	<i>5,3</i>	<i>3,0</i>	<i>10,9</i>	<i>0,0</i>
11	1	22,7	3,7	5,7	16,3	0,0
	2	22,7	4,3	6,7	6,7	0,0
	3	6,7	2,0	3,3	3,3	0,0
	<i>Gj.snitt</i>	<i>17,3</i>	<i>3,3</i>	<i>5,2</i>	<i>8,8</i>	<i>0,0</i>
12	1	206,7	9,3	6,7	7,3	0,0
	2	102,7	0,0	0,7	19,3	0,0
	3	22,7	0,3	0,7	16,3	0,0
	<i>Gj.snitt</i>	<i>110,7</i>	<i>3,2</i>	<i>2,7</i>	<i>14,3</i>	<i>0,0</i>
15	1	226,7	2,0	10,7	25,3	0,0
	2	173,3	9,3	8,7	18,7	0,7
	3	10,7	4,3	3,3	17,3	1,0
	<i>Gj.snitt</i>	<i>136,9</i>	<i>5,2</i>	<i>7,6</i>	<i>20,4</i>	<i>0,6</i>
17	1	0,0	4,0	3,3	16,3	0,7
	2	9,3	1,7	1,0	6,2	0,7
	3	0,0	0,0	0,3	2,6	0,0
	<i>Gj.snitt</i>	<i>3,1</i>	<i>1,9</i>	<i>1,6</i>	<i>8,4</i>	<i>0,4</i>
18	1	93,3	3,3	8,0	25,7	0,3
	2	180,0	8,0	13,7	13,7	6,0
	3	146,7	24,7	12,0	11,7	9,0
	<i>Gj.snitt</i>	<i>140,0</i>	<i>12,0</i>	<i>11,2</i>	<i>17,0</i>	<i>5,1</i>
19	1	60,0	3,7	8,0	11,7	0,0
	2	102,7	9,3	5,7	20,3	0,0
	3	13,3	11,7	12,3	17,3	0,3
	<i>Gj.snitt</i>	<i>58,7</i>	<i>8,2</i>	<i>8,7</i>	<i>16,4</i>	<i>0,1</i>
22	1	100,0	12,7	2,1	11,2	2,0
	2	36,0	19,5	1,0	3,5	1,3
	3	46,7	28,0	4,3	1,9	1,4
	<i>Gj.snitt</i>	<i>60,9</i>	<i>20,1</i>	<i>2,5</i>	<i>5,5</i>	<i>1,6</i>
23	1	14,7	5,3	6,0	16,0	0,0
	2	16,7	4,2	5,0	11,7	0,5
	3	40,3	4,0	1,7	8,8	1,3
	<i>Gj.snitt</i>	<i>23,9</i>	<i>4,5</i>	<i>4,2</i>	<i>12,2</i>	<i>0,6</i>
25	1	67,3	3,0	2,3	19,7	1,7
	2	73,3	7,3	1,8	9,8	1,3
	3	53,3	12,0	1,5	4,2	2,6
	<i>Gj.snitt</i>	<i>64,7</i>	<i>7,4</i>	<i>1,9</i>	<i>11,2</i>	<i>1,9</i>
27	1	66,7	17,0	1,7	1,6	2,6
	2	8,3	3,9	0,1	2,1	0,7
	3	0,0	0,7	0,0	1,8	1,9
	<i>Gj.snitt</i>	<i>37,5</i>	<i>7,2</i>	<i>0,6</i>	<i>1,8</i>	<i>1,7</i>

**Tabell 2.** Kjemiske analyser av tare. Stasjon og prøvetakingsdyp, totalt tørrstoff (g/kg), total-nitrogen ( $\mu\text{g}/\text{mg}$ ), total-karbon ( $\mu\text{g}/\text{mg}$ ), total-fosfor ( $\mu\text{g}/\text{g}$ ) samt forholdet karbon/nitrogen. Oppgitte verdier er på tørrvektbasis.

Stasjon	Dyp	TTS	tot-N	tot-C	tot-P	C/N
A2	6		25.4	296	1350	11.65
A2	6		23.6	298	1397	12.63
A2	6		29.8	316	2223	10.60
A2	8		22.9	305	886	13.32
A2	8		26.8	284	994	10.60
A2	10		25.5	320	1364	12.55
A2	10		26.1	318	3018	12.18
A3	4		21.1	333	670	15.78
A3	4		22.4	311	119	13.88
A3	6		25.7	305	2385	11.87
A3	6		22.6	300	1941	13.27
A3	6		25.8	305	2372	11.82
A3	6		23.2	315	1568	13.58
A3	8		28.2	312	2375	11.06
A3	8		26.6	308	2051	11.58
A4	6		23.9	306	1462	12.80
A4	6		23.4	324	1493	13.85
A4	8		32.5	325	2982	10.00
A4	8		28	298	2641	10.64
A4	8		29.6	324	3259	10.95
A4	8		27.3	335	2632	12.27
A4	10		33.3	309	4403	9.28
A4	10		32.2	321	4642	9.97
A5	4	141	22	300	1377	13.64
A5	4	146	21.7	317	1351	14.61
A5	7	116	27.9	290	2861	10.39
A5	7	131	27.3	310	2503	11.36
A5	7	126	25.2	303	2350	12.02
A5	7	121	31.8	304	2530	9.56
A5	10	108	27.1	269	2775	9.93
A5	10	138	28.5	309	2412	10.84
B7	1	130	23.4	307	2250	13.12
B7	1	159	20.7	337	1437	16.28
B7	2	146	21.1	326	1909	15.45
B7	2	145	24.5	325	1833	13.27
B7	2	137	25.9	321	2400	12.39
B7	2	157	20.3	340	1170	16.75
B7	3	119	23.7	288	2128	12.15
B7	3	135	25.7	322	2479	12.53
B10	1	169	20.4	339	1248	16.62
B10	1	167	22.2	332	1474	14.95
B10	2	144	19.1	320	1149	16.75
B10	2	137	21.8	312	2167	14.31
B10	2	116	23.3	286	3279	12.27
B10	2	133	22.1	309	1225	13.98
B10	3	126	25.4	297	2449	11.69
B10	3	136	24	311	2362	12.96

forts. tabell 2.

Stasjon	Dyp	TTS	tot-N	tot-C	tot-P	C/N
B11	1	160	22.9	335	1826	14.63
B11	1	178	19.1	346	1367	18.12
B11	2	158	20.6	333	2360	16.17
B11	2	173	18.2	346	1637	19.01
B11	2	132	21.6	304	2028	14.07
B11	2	140	20.6	320	1249	15.53
B11	3	137	22.5	314	3007	13.96
B11	3	140	21.8	324	2528	14.86
B12	1	149	21.3	323	1220	15.16
B12	1	149	20	329	1356	16.45
B12	2	123	21.7	285	1518	13.13
B12	2	130	20.9	311	2139	14.88
B12	2	127	20.5	298	1853	14.54
B12	2	122	23.6	304	2459	12.88
B12	3	140	22.7	321	2596	14.14
B12	3	129	22.7	297	3104	13.08
C15	1	163	20.8	327	1205	15.72
C15	1	156	22.2	324	1894	14.59
C15	2	142	21.7	319	1685	14.70
C15	2	140	21.3	297	1625	13.94
C15	2	139	21.9	300	2744	13.70
C15	2	159	22.4	330	1918	14.73
C15	3	145	26.2	321	1775	12.25
C15	3	122	23.3	276	2922	11.85
C17	1	146	21.2	316	2606	14.91
C17	1	152	19.5	323	1931	16.56
C17	2	167	22	338	1515	15.36
C17	2	151	23.2	323	2262	13.92
C17	2	162	21.1	334	1699	15.83
C17	2	167	20.8	338	1915	16.25
C17	3	91.1	24	305	2605	12.71
C17	3	141	23.7	326	2404	13.76
C18	1	141	19.3	277	1415	14.35
C18	1	145	18.6	291	2351	15.65
C18	2	162	20.4	317	1485	15.54
C18	2	164	20.1	323	1282	16.07
C18	2	160	20	322	1332	16.10
C18	2	175	19.8	332	1282	16.77
C18	3	149	19.6	305	1589	15.56
C18	3	152	19.8	295	1456	14.90
C19	1	190	18.9	363	734	19.21
C19	1	185	21.7	339	1385	15.62
C19	2	199	18.3	355	916	19.40
C19	2	204	21.4	350	1459	16.36
C19	2	160	18.2	328	1049	18.02
C19	2	202	19	357	1089	18.79
C19	3	170	20.1	325	2157	16.17
C19	3	168	18.9	326	2060	17.25



forts. tabell 2.

Stasjon	Dyp	TTS	TN/F	TC/F	Tot-P-B	C/N
D22	1	173	14.2	329	1152	23.17
D22	1	169	14.8	323	839	21.82
D22	2	184	12.9	346	921	26.82
D22	2	187	11.1	346	732	31.17
D22	2	148	12.1	308	843	25.45
D22	2	172	12.3	336	1081	27.32
D22	3	165	18.4	329	1613	17.88
D22	3	177	14	337	1481	24.07
D23	1	164	13.9	312	1610	22.45
D23	1	163	14.9	316	1705	21.21
D23	2	152	15.5	299	1821	19.29
D23	2	154	14.7	309	2021	21.02
D23	2	145	16.3	301	1954	18.47
D23	2	147	14.6	298	1832	20.41
D23	3	154	14.4	304	2082	21.11
D23	3	208	15.4	311	1940	20.19
D25	1	188	14.9	320	1487	21.48
D25	1	193	15.8	321	1858	20.32
D25	2	166	13.9	320	1621	23.02
D25	2	182	18.2	329	2345	18.08
D25	2	182	18	329	2452	18.28
D25	2	161	15.8	318	2511	20.13
D25	3	172	14.5	316	2034	21.79
D25	3	155	16	311	1950	19.44
D27	1	188	13.8	351	1194	25.43
D27	1	168	14.8	337	1462	22.77
D27	2	218	14.5	353	1161	24.34
D27	2	194	15.9	337	1334	21.19
D27	2	204	14.7	348	1358	23.67
D27	2	170	16.9	335	1286	19.82
D27	3	166	16.3	321	2256	19.69
D27	3	176	18.1	340	2722	18.78

Tabell 3. Dyp (m) og helning på substratet (°) for tareregistreringsruter undersøkt i 1995.

Area	Stnr	Dypnr Rutenr	1				2				3				
			1	2	3	Snitt	1	2	3	Snitt	1	2	3	Snitt	
A	2	Dyp, m	6,8	6,2	6	6,3	8	8	8	8,0	9	9	9	9,0	
		Helning, °	60	45	10	38,3	45	60	45	50,0	30	45	60	45,0	
	3	Dyp, m	4	4	4	4,0	6	6	6	6,0	8	8	8	8,0	
		Helning, °	45	75	60	60,0	20	15	45	26,7	25	10	10	15,0	
	4	Dyp, m	6	6	6	6,0	8	8	8	8,0	10	10	10	10,0	
		Helning, °	45	60	70	58,3	70	70	90	76,7	10	5	60	25,0	
	5	Dyp, m	4	4,5	4,8	4,4	7	7	7	7,0	10	10	10	10,0	
		Helning, °	10	10	10	10,0	45	30	30	35,0	45	60	60	55,0	
	Snitt Dyp			5,2	5,175	5,2	5,2	7,25	7,25	7,25	7,3	9,25	9,25	9,25	9,3
	Helning			40	47,5	37,5	41,7	45	43,75	52,5	47,1	27,5	30	47,5	35,0
B	7	Dyp, m	4	4	4	4,0	7	7	7	7,0	10	10	10	10,0	
		Helning, °	60	70	80	70,0	60	45	45	50,0	30	40	20	30,0	
	10	Dyp, m	4	4	4	4,0	7	7	7	7,0	10	10	10	10,0	
		Helning, °	60	60	60	60,0	10	20	45	25,0	60	70	70	66,7	
	11	Dyp, m	4	4	4	4,0	7	7	7	7,0	10	10	10	10,0	
		Helning, °	45	45	10	33,3	60	60	60	60,0	45	45	60	50,0	
	12	Dyp, m	4	4	4	4,0	7	7	7	7,0	10	10	10	10,0	
		Helning, °	80	60	70	70,0	60	70	60	63,3	60	70	60	63,3	
	Snitt Dyp			4	4	4	4,0	7	7	7	7,0	10	10	10	10,0
	Helning			61,25	58,75	55	58,3	47,5	48,75	52,5	49,6	48,75	56,25	52,5	52,5
C	15	Dyp, m	4	4	4	4,0	7	7	7	7,0	10	10	10	10,0	
		Helning, °	20	60	10	30,0	45	45	10	33,3	10	45	70	41,7	
	17	Dyp, m	4	4	4	4,0	7	7	7	7,0	10	10	10	10,0	
		Helning, °	10	10	10	10,0	45	10	45	33,3	45	60	60	55,0	
	18	Dyp, m	4	4	4	4,0	7	7	7	7,0	10	10	10	10,0	
		Helning, °	45	60	60	55,0	40	40	10	30,0	15	0	25	13,3	
	19	Dyp, m	4	4	4	4,0	7	7	7	7,0	10	10	10	10,0	
		Helning, °	40	10	10	20,0	60	45	60	55,0	0	5	10	5,0	
	Snitt Dyp			4	4	4	4,0	7	7	7	7,0	10	10	10	10,0
	Helning			28,75	35	22,5	28,8	47,5	35	31,25	37,9	17,5	27,5	41,25	28,8
D	22	Dyp, m	4	4	4	4,0	7	7	7	7,0	10	10	10	10,0	
		Helning, °	45	45	45	45,0	80	70	60	70,0	60	70	60	63,3	
	23	Dyp, m	4,5	4,8	4	4,4	7	7	7	7,0	10	10	10	10,0	
		Helning, °	60	60	90	70,0	45	60	60	55,0	45	45	60	50,0	
	25	Dyp, m	4	4	4	4,0	7	7	7	7,0	10	10	10	10,0	
		Helning, °	20	10	25	18,3	40	60	50	50,0	45	60	60	55,0	
	27	Dyp, m	4	4	4	4,0	7	7	7	7,0	10	10	10	10,0	
		Helning, °	80	70	45	65,0	80	45	60	61,7	10	80	45	45,0	
	Snitt Dyp			4,125	4,2	4	4,1	7	7	7	7,0	10	10	10	10,0
	Helning			51,25	46,25	51,25	49,6	61,25	58,75	57,5	59,2	40	63,75	56,25	53,3



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