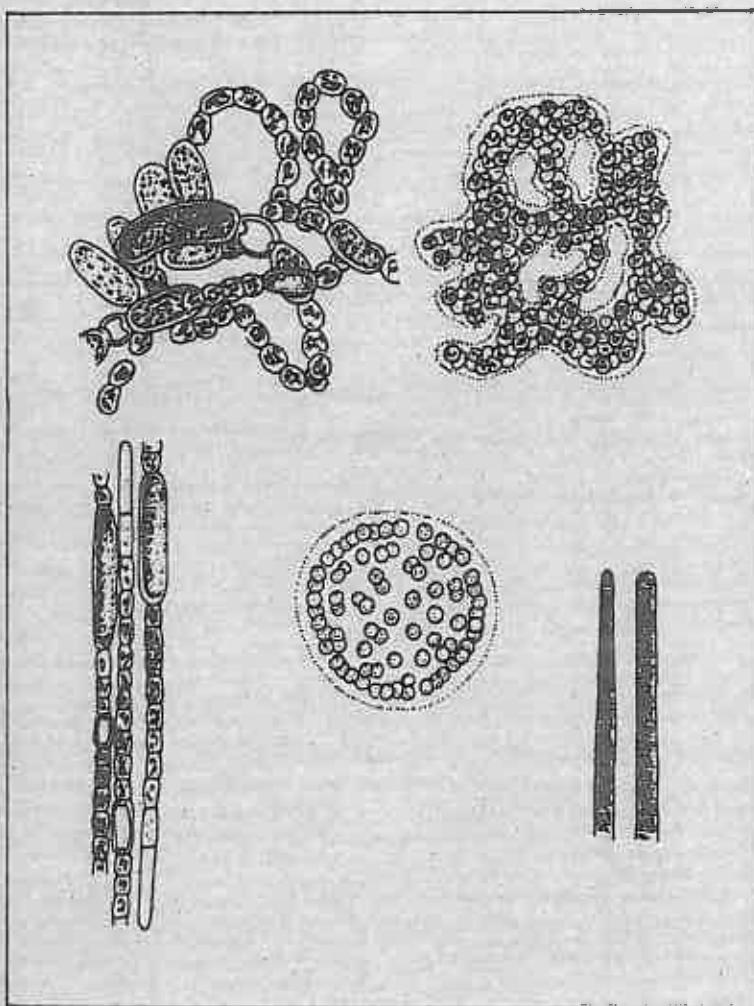


O - 70219

Haldenvassdragets Vassdragsforbund

Undersøkelse i Haldenvassdraget



Del 5.

Planteplankton i innsjøene—
septemberhåvtrekk 1961 - 1976

Norsk institutt for vannforskning NIVA



0-70219

HALDENVASSDRAGETS VASSDRAGSFORBUND

Undersøkelse i Haldenvassdraget

Del 5:

Planteplankton i innsjøene -
septemberhåvtrekk 1961-1976.

Bindern, 19. juli 1979

Saksbeh.: Olav Skulberg

Medarb.: Jozef Kotai

Reidun Aaker

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Prøvene ble samlet inn ved hjelp av en planktonhåv med poreåpning 25 µm. Ved mikroskopering ble det for hver prøve foretatt en subjektiv vurdering av mengden av de ulike artene. Tabellene angir en kvantitativ forekomst etter følgende skala.

- + Tilsatte
- 1 Sjeldent
- 2 Sparset
- 3 Vanlig
- 4 Hyppig
- 5 Dominant

Tabell 370 Planteplankton i Øgderen. September-håvtrekk 1961 - 1976.

Tabell 371 Planteplankton i Rødenessjøen September-håvtrekk 1961-1976.

ARTER	1961	1962	1963	1964	1965	1967	1968	1969	1970	1971	1972	1973	1974	1976
CYANOPHYCEAE														
Anabaena circinalis Rabenh.														
Anabaena flos-aquae (Lyngb.) Bréb.	1		+	1	1			+		3		2		1
Anabaena plantonica Brunnth.	1		1	1	1						4	1		1
Anabaena spiroides Klebahn	3					3	4		2	2	3	1		
Anabaena sp. Bory sp.		1		1	+	1	1	1	2	1	1	2		3
Aphanizomenon flos-aquae (L.) Ralfs	3	5	5	5	4	1	3	+	3	1	3	3		4
Cotlosphaerium naegelianum Unger	4	3	3	3	2	3	4	2	4	1				1
Gomphosphaeria aponina Kütz.								1						
Gomphosphaeria lacustris Chod.														
Merismopedia glauca (Ehr.) Nüg.												1		
Microcystis aeruginosa Kütz.														
Microcystis sp.														
Oscillatoria agardhii var. isothrix Skuja	2		+	+				+				1	5*	1
Oscillatoria limosa Ag.								1						
Oscillatoria splendida Grev.								+						
Pseudanabaena Laut. sp.														
CHLOROPHYCEAE														
Botryococcus braunii Kütz.		+					1		1	1	1			+
Closterium Nitzzsch. sp.									1	+				
Coelastrum cf. cambricum Arch.	1								+	+				
Coelastrum microporum Nüg.														
Cosmarium Corda sp.														
Dictyosphaerium pulchellum Wood	1	1					1		1	2	+	1		
Eudorina elegans Ehr.									1	1				
Gloeocystis Nüg. sp.														
Kirchneriella obesa (W.West) Schmidle		+	+				1	1						
Nephrocystis agaridhianus Nüg.														1
Oocystis lacustris Chod.														
Oocystis Nüg. sp.														
Pandorina morum (Millet) Bory														
Pediastrum boryanum (Turp.) Menegh.														
Pediastrum duplex Meyen		+												
Pediastrum tatrae (Ehr.) Ralfs														
Quadrigula pfitzeri (Schroeder) Printz														
Scenedesmus cf. acuminatus (Lagerh.) Chod.														
Scenedesmus cf. falcatus Chod.														
Scenedesmus quadricauda (Turp.) Bréb.														1
Sphaerocystis schroeteri Chod.														
Spondylium planum (Wolle) W. & G.S.West														
Staurastrum cf. cuspidatum Bréb.														
Staurastrum Mayan spp.														
Ulothrix grønnalge														
Xanthidium antilopaeum (Bréb.) Kütz.														
Xanthidium Ehr. sp.														
BACILLARIOPHYCEAE														
Asterionella formosa Hass.	3		1	1				+		2	2	2	2	2
Attheya zachariasii Brun.	1		+	1				+	2	2	2	1	1	1
Fragilaria crotonensis Kitton	1		+				2	2	1	2	2	1	2	+
Fragilaria Lyngb. sp.														
Melosira cf. ambigua (Grun.) O. Müll.														
Melosira granulata (Ehr.) Ralfs														
Melosira Agardh sp.														
Rhizosolenia longisetata Zach.														
Surirella Turp. sp.	1	1	+	2	1	1	1	1	2	2	2	1		2
Synedra ulna (Nitz.) Ehrenb.														
Tabellaria fenestrata (Lyngb.) Kütz.	3	1	2	1			1	1	2	2	3	3		2
Tabellaria fenestrata var. asterionelloides Grun.														
Tabellaria flocculosa (Roth) Kütz.							1							
CHrysophyceae														
Dinobryon bavaricum Imh.	1													1
Dinobryon divergens Imh.	2													1
Dinobryon sociale Ehr.	1													2
Mallomonas fastigata Zach.		1												
Mallomonas Party spp.	1		+	+										2
Synura uvelia Ehr.	1	1	+	1										2
DINOPHYCEAE														
Ceratium hirundinella (O. Müll.) Schrank	1	1	+	1	2			1	1	1	1	1		1
Peridinium Ehr. sp.		+	+	+	2									1

*Observeert i kvantitativ prøve.

Tabell 372 Plantoplankton i Øymarksjøen.

September-håvtrekk 1961 - 1976.

ARTER	1961	1962	1963	1964	1965	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
CYANOPHYCEAE															
Anabaena circinalis Rabenh.	3			1	2			2		2	1		+	2	2
Anabaena flos-aquae (Lyngb.) Bréb.	1		1	1	1			1	+			1	1		
Anabaena planctonica Brunth.			1	2	1										
Anabaena spiroides Klebsch.						2	4	+	2						
Anabaena bory spp.						+	1-2	1							
Aphanizomenon flos-aquae (L.) Ralfs	1	3	4	3	3	1	3	2	2	1	3	1	2	2	3
Coccolosphaerium naegelianum Unger	4	3	4	4	3	4	3-4	2	3	1	4	3			
Gomphosphaeria apotina Kütz.								1						2	
Microcystis aeruginosa Kütz.								+				1			
Microcystis sp. sp.													+		
Oscillatoria agardhii var. isothrix Skuja	1			1				+	1			1	4-5	1	2
Oscillatoria limnetica Lemm.								+							
Oscillatoria tenuis Ag.															
Oscillatoria Vaucher spp.															1
CHLOROPHYCEAE															
Anistrodesmus falcatus (Corda) Ralfs															
Arthrodessmus incus (Bréb.) Hass.															
Botryococcus braunii Kütz.															
Cladotrichum Nitzsch sp.															
Colestrum Nüg. sp.															
Commarium Corda sp.															
Crucigenia rectangularis (A. Braun) Gay															
Crucigenia tetrapedia (Kirchn.) W.G.S.West															
Dictyosphaerium cf. elegans Bachm.															
Dictyosphaerium pulchellum Wood															
Elatokothrix gelatinosa Wille	1														
Eudorina elegans Ehr.															
cf. Gemelicystis neglecta Teiling em. Skuja	1														
Gloeoctysis planctonica (West) Lemm.	+														
cf. Gloeoctysis Nüg. sp.															
Hyalotheca dissiliens (J.E. Smith) Bréb.															
Kirchneriella obesa (W. West) Schmidle															
Microsterias Ag. sp.															
Neophascytum agardhianum Mög.															
Ocycystis lacustris Chod.															
Ocycystis Nüg. sp.															
Pandorina morum (Müller) Bory															
Paulschulzia pseudovolvex (Schulz) Skuja															
Pediastrium boryanum (Turp.) Menegh.															
Pediastrium duplex Meyen															
Quadrigula pfitzeri (Schroeder) Printz															
Schenckesmus quadriceps (Turp.) Bréb.															
Schenckesmus Meyen sp.															
Sphaeroscytis scherzeri Chod.															
Spondylidium planum (Wolle) W.G.S.West															
Staurastrum cf. apiculatum Bréb.															
Staurastrum cf. cuspidatum Bréb.															
Staurastrum cf. gracile Ralfs															
Straurastrum Meyen spp.															
Staurodessmus Teiling sp.	1			1			1			1	1		2	1	2
Ulothrix grönalge															
Xanthidium antilopeum (Bréb.) Kütz.															
Xanthidium Ehr. sp.															
BACILLARIOPHYCEAE															
Asterionella formosa Hass.	3			2				1	1	2	1	2	1	1	1
Athyrea zachariensis Brun.	2	+	+	2				+		+		2	1	1	1
Cyclotella bod-nica Zulemat.															
Cyclotella Kütz. sp.															
Diatoms elongatum (Lyngb.) C.A.Ag.															
Fragilaria capucina Desm.															
Fragilaria crotonensis Kirton															
Melosira ambigua (Grun.) O.Müll.			1	2		2	1	+	2	2	1	1	1	1	1
Melosira distans (Ehr.) Kütz.															
Melosira Agardh. spp.															
Rhizosolenia eriomata H.L.Smith															
Rhizosolenia longisetata Zach.	2	1	2												
Tabellaria fenestrata (Lyngb.) Kütz.	4	1	1	4	1	1	1	1	2	1	2	3	1	4	2
Tabellaria fenestrata var. asterionelloides Grun.															
Tabellaria flocculosa (Roth) Kütz.															
CHRYSOPHYCEAE															
Dinobryon bavaricum Imh.															
Dinobryon divergens Imh.	2														
Dinobryon sociale Ehr.	1														
Dinobryon sociale var. americanum (Brunth.) Bachm.															
Mallomonas fastigata Zach.															
Mallomonas regiae Telli.															
Mallomonas Perty sp.	3														
Stichoglossa joerdeleinii (Schmidle) Wille															
Synura uvella Ehr.	1	1													
Synura Ehr. sp.															
DINOPHYCEAE															
Ceratium hirundinella (O.Müll.) Schrank	+	+	+	+	+								1	1	1
Peridinium Ehr. sp.	1	+	+	+	+								+	+	+

Tabell 373 Planteplankton i Aremarksjøen. September-håvtrekk 1961 - 1976.

Tabell 374 Planterplankton i Aspern.

September-håvtrekk 1967 - 1976.

ARTER	1967	1968	1969	1970	1971	1972	1973	1974	1976
CYANOPHYCEAE									
Anabaena circinalis Rabenh.	2	2	2		2			1	1
Anabaena flos-aquae (Lyngb.) Bréb.	+	+		+	3			+	2
Anabaena planctonica Brunnth.						+			1
Anabaena spiroides Klebahn									
Anabaena Bory sp.	3			1					
Aphanizomenon flos-aquae (L.) Ralfs	1			1	+	1	+		
Chroococcus Nág. sp.									
Coelosphaerium naegelianum Unger	3	3	3	1	4	3	1	3	3
Gomphosphaeria aponina Kütz.			*						
Gomphosphaeria lacustris Chod.	1	2	2		*			1	
Microcystis flos-aquae (Witt.) Kirchn.					3				
Oscillatoria agardhii var. isothrix Skuja	+			*		*		*	1
Oscillatoria splendida Grev.				*					
Oscillatoria cf. tenuis Ag.				*					
CHLOROPHYCEAE									
Arthrodesmus incus (Bréb.) Hass.					*	2	1	1	1
Botryococcus braunii Kütz.				*	*		*		
Closterium Nitzsch sp.						*			
Cosmarium Corda sp.	+				1			1	1
Crucigenia rectangularis (A.Braun) Gay					*			1	1
Dictyosphaerium pulchellum Wood	+			1	1		1	1	
Eudorina elegans Ehr.				*	1		1		
cf. Gloeocystis Nág. sp.		2	*					*	
Nephrocystum agardhianum Nág.	+							*	
Occystis lacustris Chod.								*	
Occystis Nág. sp.								*	1
Pandorina morum (Müller) Bory	+	1	1						
Paulschulzia pseudovolvox (Schulz) Skuja					*				
Pediastrum boryanum (Turp.) Menegh.					*			*	
Pediastrum tetras (Ehr.) Ralfs								*	
Quadrigula pfitzeri (Schroeder) Printz				1				3	
Scenedesmus Meyen sp.				*			*		
Sphaerocystis schroeteri Chod.								2	
Spondyliosmum planum (Wolle) W.&G.S.West		1		*					
Staurastrum cf. apiculatum Bréb.	1	2	1	1					
Staurastrum Meyen spp.	2	2	1	2	*	*	2	2	2
Xanthidium antilopaeum (Bréb.) Kütz.	1	*	*	2			1	*	1
Xanthidium Ehr. sp.									
BACILLARIOPHYCEAE									
Asterionella formosa Hass.	2	*	3	2	*	2	3	3	1
Attheya zachariasii Brun.	+		3	1	1	2	2	4	*
cf. Cyclotella Kütz. sp.			2						
Fragilaria crotonensis Kitton	1	1	1	2		1	*	*	
Melosira distans (Ehrenb.) Kütz.									
Melosira islandica O.Müll.			1						
Melosira Agardh spp.			1						
Rhizosolenia eriensis H.L.Smith	1					1		1	
Rhizosolenia longiseta Zach.	1		2	1	*	1	2	4	3
Surirella Turp. sp.					*				
Synedra ulna (Nitz.) Ehrenb.							*		
Tabellaria fenestrata (Lyngb.) Kütz.	2	3	2	3	2	3	2	4	3
Tabellaria fenestrata var. asterionelloides Grun.					*	1			
Tabellaria flocculosa (Roth) Kütz.		1							
CHRYSOPHYCEAE									
Dinobryon bavaricum Imhof						1		*	1
Dinobryon divergens Imhof	2	1	1	*		2	1	1	1
Dinobryon sociale Ehr.				*					2
Dinobryon sociale var. americanum (Brunth.) Bachm.						2		1	
Mallomonas cf. allorgei (Defl.) Conr.			2						
Mallomonas fastigata Zach.								1	
Mallomonas Perty spp.	+		*	1			2		2
Salpingoeca frequentissima (Zach.) Lemm.						2		2	
Stichogloea doederleinii (Schmidle)						*	1	1	1
Synura uvella Ehr.						1	1	1	2
DINOPHYCEAE									
Ceratium cornutum (Ehr.) Clap. & Lachm.	+							*	1
Ceratium hirundinella (O.Müll.) Schrank	1	*	*	1		1	1	*	2
Peridinium Ehr. sp.		1	*	1					

Tabell 375 Planteplankton i Femsjøen.

September-håvtrekk 1961 - 1976.

ARTER	1961	1963	1964	1967	1968	1969	1970	1971	1972	1973	1974	1976
CYANOPHYCEAE												
Anabaena circinalis Rabenh.	1		1	2				+				1
Anabaena flos-aquae (Lyngb.) Bréb.	2		2	+	1	+	+	+	3	1	+	1
Anabaena planctonica Brunth.		2	2									1
Anabaena spiroides Klebahn		1		3	1		2					+
Anabaena Bory sp.		1		1	1		+					+
Aphanizomenos flos-aquae (L.) Ralfs	4	3	4	3	3	+	2	3	4	2	3	3
Coelosphaerium naegelianum Unger	+		+		1	2		1				1
Compsophaeria lacustris Chod.												
Merismopedia glauca (Ehr.) Nüg.												
Merismopedia Meyen sp.												
Microcystis flos-aquae (Wittm.) Kirchn.					+							
Microcystis Kütz. sp.	+			+	+	+						+
Oscillatoriella agardhii var. isothrix Skuja			+	+	+	+						+
Oscillatoria Vaucher sp.												
CHLOROPHYCEAE												
Arthrodessmus incus (Bréb.) Hass.	1											1
Bettyrococcus braunii Kütz.	2		+		1	+	2				1	1
Closterium Nitzsch sp.												+
Coelastrum cf. cambicum Arch.								+				+
Coelastrum microporum Nüg.								+				+
Cosmarium Corda sp.												1
Crucigenia rectangularis (A. Braun) Gay												1
Crucigenia tetrapedia (Kirchn.) W. & G.S.West												+
Dictyosphaerium pulchellum Wood	1	1			1	1			1			
Euastrum verrucosum Ehr.												
Eudorina elegans Ehr.												
cf. Gemmellitycia neglecta Teiling em. Skuja												
cf. Gloecocystis Nüg. sp.												
Kirchneriella obesa (W. West) Schmidle	1											
Micrasterias americana (Ehr.) Ralfs												
Nephrocytium agardhianum Nüg.	1		+		+		+	+			1	1
Oocystis laevis Chod.												
Oocystis Nüg. sp.												
Pandorina morum (Müller) Bory												
Paulschulzia pseudovolvix (Schultz) Skuja												
Pediastrium boryanum (Turp.) Menegh.			+	1								
Pediastrium duplex Meyen												
Quadrigula pfitzeri (Schroeder) Printz												
Scenedesmus Meyen sp.												
Sphaerocystis schroeteri Chod.												
Spondylium planum (Wolla) W. & G.S.West			+	1		1						
Staurastrum cf. apiculatum Bréb.												
Staurastrum arcticum (Ehr.) Lund												
Staurastrum cf. cuspidatum Bréb.												
Staurastrum ophiura Lund												
Staurastrum Meyen spp.												
Staurodesmus Teiling spp.	2	1	1	1	1	+	2	1	1	1	2	2
Tetmemorus Ralfs sp.												
Ulothrichal grönalige												
Xanthidium antilopaeum (Bréb.) Kütz.			+	+	1	+	1	2	2	1	1	1
Xanthidium antilopaeum (Bréb.) Kütz. var.	1											
Xanthidium Ehr. sp.												
BACILLARIOPHYCEAE												
Asterionella formosa Hass.	3	2	2	2	1	1	2	2	2	2	2	1
Attheya zachariassii Brun.			1									
cf. Cyclotella Kütz. sp.												
Fragilaria capucina Desm.												
Fragilaria construens (Ehr.) Grun.												
Fragilaria crotonensis Kitton												
Fragilaria Lyngb. sp.												
Melosira distans (Hohenb.) Kütz.												
Melosira Ag. sp.												
Rhizosolenia eriensis H.L. Smith												
Rhizosolenia longiseta Zach.	2		1		1	1	1	2	1	3	4	1
Stenopterobia intermedia (Lewis) Fricke												
Tabellaria fenestrata (Lyngb.) Kütz.	3	4	3	1	1	3	3	3	3	3	3	3
Tabellaria fenestrata var. asterionelloides Grun.			1	+		1	1	+		1	2	1
Tabellaria flocculosa (Roth) Kütz.												
CHRYSOPHYCEAE												
Chrysosphaerella longispina Laut.												
Dinobryon bavaricum Imh.	1											
Dinobryon cylindricum Imh.	2											
Dinobryon divergens Imh.	2											
Dinobryon sociale var. americanum (Brunth.) Bachm.												
Mallomonas cf. allorgei (Delf.) Conr.												
Mallomonas fastigata Zach.												
Mallomonas Party sp.	1		1	1		1	+				1	1
Stichoglossa doederleinii (Schmidle) Wille	3											2
Synura uvella Ehr.												
DINOPHYCEAE												
Ceratium hirundinella (O.Müll.) Schrank	2	+	+	+	+	+	+	1	2		2	2
Peridinium cf. villei Huitz.-Kaas			1									
Peridinium Ehr. sp.								1				