

# **Bibliometric analysis of publications from NINA in *Science Citation Index* 1989-92**

GUNNAR SIVERTSEN

*Institute for studies in Research and Higher Education  
Munthes gate 29, N-0260 Oslo, Norway*

*First draft: 6. September 1993*

## **Contents**

Introduction	2
SCI's coverage of NINA's publications	3
SCI journals with NINA articles	5
NINA's scientific environment in Norway	8
NINA articles by year of publication	10
The authors of NINA's SCI articles	11
External collaboration within Norway	14
International collaboration	15
Appendix A: The titles of 135 SCI articles, ordered by topics	17
Appendix B: 135 SCI articles, ordered by name of first author	22

## Introduction

This small bibliometric study is connected to a current evaluation of the Norwegian Institute for Nature Research (NINA). Its aim is to aid the evaluation by giving a systematic overview of information available about 135 publications from NINA that were indexed in the *Science Citation Index (SCI)* throughout the four years 1989-92.

Knowledge of NINA and its areas of research is needed to judge the information presented here. None of the rankings or numbers presented can be translated into evaluative statements without additional information about the research, its organization and its financing. Such information is not contained within this study. The emphasis will therefore mainly be on the presentation of results, and less on interpretations and conclusions.

The study makes use of bibliographic information about the *published articles*: authors, title, journal, year of publication and author's addresses. *Citations* are *not* studied for two specific reasons: The four-year period studied is too recent to give valid citation counts, and a standard for comparison with other institutions publishing in the same areas as NINA is not available. In addition come the general problems with using citation indicators on a body of articles that mainly represent applied research.

Still, many options remain when bibliographic information about published articles is available in machine-readable format. In this study, the journals most frequently used by NINA for publication are identified. Articles from NINA are analyzed within a framework of all articles from Norwegian institutions in the same journals in the same period. Author's addresses are used to identify other institutions within and outside Norway that NINA's scientists have collaborated with. A list showing the number of publications per author and co-authorship relationships is presented. With the use of word frequency analysis, the titles of the articles have been sorted according to topics in Appendix A.

## SCI's coverage of NINA's publications

Scientific publications are only a subset of NINA's output in publications, and the SCI covers only a portion of the scientific publications. The annual reports from NINA 1989-92 list 395 scientific publications. Among these, 124 items could be matched to the bibliographic entries in *Science Citation Index* in the same period, when retrieving all publications with "Norway" in the address field from the CD ROM-version. In addition, we found 11 Norwegian SCI articles that carried NINA as an author's address or the name of a NINA scientist. The staff at NINA confirmed that the annual reports had been incomplete with regard to these articles, and that they should be included among the SCI publications from NINA. When matching with the SCI, we also discovered three articles that had been listed twice in the annual reports.

Thus, the total number of scientific publications from NINA in the period can be set to 392 (disregarding any other possible omissions in the annual reports), of which 135 (34 per cent) have been indexed in the *Science Citation Index*.

To be indexed in the SCI, the publication must be a *journal article* and it must have been published in one of the more than 3.000 scientific journals selected for coverage in the database. In theory, the database is meant to cover the central core of publication channels in all scientific areas. In practice, the coverage of the published literature varies among the sciences. Applied science in general, and field work in biology and the geosciences in particular, are not among the most widely covered areas. This is partly because other publication types than journal articles are more common, but also because

**Table 1. Scientific publications from NINA 1989-92, and the portion of these that have been indexed in Science Citation Index.**

	Number of items	Percentages	Percentages
Scientific publications listed in annual reports	392	100%	
- Journal articles in English	219	56%	
- Not journal articles, and/or not in English	173	44%	
Journal articles in English	219	56%	100%
- Indexed in Science Citation Index	135	34%	62%
- Not indexed in Science Citation Index	84	21%	38%
Indexed in Science Citation Index	135	34%	100%
- In Non-Scandinavian journals	110	28%	81%
- In Scandinavian journals	25	6%	19%
Not indexed in Science Citation Index	84	21%	100%
- In Non-Scandinavian journals	46	12%	55%
- In Scandinavian journals	38	10%	45%

the journals as communication channels are less centralized on an international level in these areas. Nuclear physics and biochemistry are examples of scientific fields where a larger part of the output can be traced in articles published in large international journals covered by the SCI.

With regard to NINA, most of the scientific publications not covered by the SCI are not journal articles, and/or have not been published in English. If we select only journal articles in English, 219 (56 per cent) of the scientific publications could have been expected to be indexed in the SCI. This is shown in *table 1*.

Among the 219 articles, 84 (38 per cent) have not been indexed in the SCI. *Table 2* shows the non-SCI journals they were published in. At the top of the list with 21 articles is *Fauna Norvegica*, which is not regarded as an international journal, although the articles are published in English. But there are journals on the list which show that our SCI data are somewhat incomplete with regard to internationally published journal articles. Especially, *Aquaculture and Fisheries Management* (13 articles) seems to be an important publication channel from the point of view of NINA which is not covered by the SCI.

This relative incompleteness of SCI as a data source should be taken into account, when judging the results presented in the following. In particular, we emphasize the above mentioned relation between the type of research on the one hand, and the publication type and SCI coverage on the other. This may explain differences between departments or scientists at NINA with regard to the number of publications indexed in the SCI.

**Table 2. Journal articles in English from NINA 1989-92 that were not indexed in Science Citation Index.**

* Fauna Norvegica	21
Aquaculture and Fisheries Management	13
American Fish Society Symp.	6
Fisheries Research	4
* Nordic Journal of Freshwater Research	4
* Polar Research	4
Alces	3
* Acta Botanica Fennica	2
Arctic Center Publications	2
* Finnish Game Research	2
Rangifer	2
Seabird	2
* Aquilo Ser. Zool.	1
Atlantic Salmon Journal	1
Avian Biology	1
Bioacustics	1
British Birds	1
Current Ornithology	1
Fisheries	1
International Ornithology	1
Journal of Environmental Radioactivity	1
Netherlands Journal of Aquatic Ecology	1
* Norsk Geografisk Tidsskrift	1
* Norwegian J of Agricultural Sciences	1
* Opera Botanica	1
* Ornis Fennica	1
Persoonia	1
Ringling and Migration	1
Small Carn. Conservation	1
Society and Natural Resources	1
Studies in Plant Ecology	1
<b>TOTAL</b>	<b>84</b>
* Scandinavian journals	38
Non-Scandinavian journals	46

## SCI journals with NINA articles



Table 3. NINA articles in SCI journals 1989-92.

	NINA	Norway	World	NINA/ Norway	Norway/ World
Aquaculture	13	146	1224	9%	11,9%
Journal of Fish Biology	12	62	937	19%	6,6%
Canadian J of Fisheries and Aquatic Sci	10	41	1171	24%	3,5%
* Oikos	8	31	709	26%	4,4%
* Ornis Scandinavica	8	30	239	27%	12,6%
Canadian Journal of Zoology	7	30	1585	23%	1,9%
Journal of Animal Ecology	6	9	290	67%	3,1%
Environmental Biology of Fishes	4	6	415	67%	1,4%
Hydrobiologia	4	31	1987	13%	1,6%
Ardea	3	5	160	60%	3,1%
Freshwater Biology	3	6	345	50%	1,7%
Journal of Applied Ecology	3	4	348	75%	1,1%
* Nordic Journal of Botany	3	29	284	10%	10,2%
Polar Biology	3	31	307	10%	10,1%
* Ambio	2	18	407	11%	4,4%
Animal Behaviour	2	13	1040	15%	1,3%
Aquatic Toxicology	2	5	227	40%	2,2%
Behavioral Ecology and Sociobiology	2	7	437	29%	1,6%
Biological Conservation	2	7	356	29%	2,0%
Journal of Wildlife Management	2	4	528	50%	0,8%
Marine Ecology Progress Series	2	40	1118	5%	3,6%
Trends in Ecology & Evolution	2	2	290	100%	0,7%
Agriculture Ecosystems & Environment	1	1	644	100%	0,2%
American Naturalist	1	5	554	20%	0,9%
Analyst	1	26	1282	4%	2,0%
* Annales Zoologici Fennici	1	3	159	33%	1,9%
AUK	1	7	468	14%	1,5%
Behaviour	1	1	251	100%	0,4%
Canadian Journal of Botany	1	3	1451	33%	0,2%
Diseases of Aquatic Organisms	1	9	81	11%	11,1%
Ecography	1	4	50	25%	8,0%
Ecology	1	5	873	20%	0,6%
Environmental Conservation	1	5	396	20%	1,3%
Environmental Management	1	1	319	100%	0,3%
Environmental Pollution	1	8	577	13%	1,4%
Ethology	1	3	334	33%	0,9%
Forest Ecology and Management	1	4	679	25%	0,6%
Heredity	1	1	458	100%	0,2%
* Holarctic Ecology	1	24	155	4%	15,5%
Ibis	1	6	289	17%	2,1%
* Journal du Conseil	1	21	93	5%	22,6%
Journal of Plankton Research	1	16	400	6%	4,0%
Marine Pollution Bulletin	1	16	891	6%	1,8%
Mycotaxon	1	13	537	8%	2,4%
Oecologia	1	8	1261	13%	0,6%
Plant Systematics and Evolution	1	4	398	25%	1,0%
Proc Roy Soc Edinburgh Section B Biol Sci	1	2	125	50%	1,6%
Research & Exploration	1	1	17	100%	5,9%
* Sarsia	1	42	103	2%	40,8%
Science of the Total Environment	1	49	1247	2%	3,9%
Vegetatio	1	3	433	33%	0,7%
Water Air and Soil Pollution	1	11	857	9%	1,3%
Water Resources Research	1	11	1201	9%	0,9%
Zeitschrift für Säugetierkunde	1	3	200	33%	1,5%
TOTAL	135	873	31187	15%	2,8%
* Scandinavian journals	25	198	2149	13%	9,2%
Non-Scandinavian journals	110	675	29038	16%	2,3%

Table 3 shows that the 135 SCI articles from NINA 1989-92 have been published in 54 different journals. More than half of the journals have only published one NINA article each, while more than half of the articles are concentrated within only nine journals: *Aquaculture*, *Journal of Fish Biology*, *Canadian Journal of Fisheries and Aquatic Sciences*, *Oikos*, *Ornis Scandinavica*, *Canadian Journal of Zoology*, *Journal of Animal Ecology*, *Environmental Biology of Fishes* and *Hydrobiologia*.

The scope of these nine journals taken together give the main "profile" of NINA's international publishing - the types of research most frequently presented internationally. In other journals with smaller number of articles, the journals may indicate the specializations of individual scientists at NINA.

Scandinavian journals are marked with asterisks in the table, with "Scandinavian" referring to the editorial address. This is not a homogenous category. *Oikos* is a large international journal with contributions from all over the world (only four per cent of its articles are from Norway), while *Annales Zoologici Fennici* is a small and almost purely national journal from Finland. Our distinction between Scandinavian and non-Scandinavian journals is not a quality assignment, but serves as a background for interpreting the relatively high percentages of Norwegian articles in some Scandinavian journals.

The other columns in *table 3* show the number of articles from Norway in the same journals the same four years, the total number of articles the journals published from any country, NINA's percentage share of all Norwegian articles and Norway's percentage share of all articles. The two last columns give some interesting indications to be focused on in the following.

From the totals at the bottom of the table, we see that the 135 NINA articles represent 15 per cent of all 873 Norwegian articles published in the same 54 journals during the same period, and that the Norwegian articles represent 2,8 per cent of all articles published in the journals.

As a piece of background information, it can be mentioned that articles from Norway in general represent 0,6 per cent of all articles (all areas of science) indexed in the SCI. In the biological sciences, Norway's share is 0,8 per cent <sup>1</sup>.

Norway's share is significantly higher in the 54 journals that the scientists at NINA have published in. In the extreme case of *Aquaculture*, the journal at the top of *table 3*, Norwegian scientists contribute with 12 per cent of all articles published in the journal.

Our observations are that:

- \* NINA is publishing in scientific fields and specialties where Norway in general has a very high publishing activity, compared to other scientific areas, even within biology.

---

<sup>1</sup> Based on indicators from National Science Foundation, USA, and presented in: Gunnar Sivertsen: *Norsk forskning på den internasjonale arena*. Rapport 1/1991 fra NAVFs utredningsinstitutt. Oslo, 1991.





- \* Other institutions in Norway are oriented towards the same scientific fields and specialties, since we observe that a high percentage of Norwegian articles in "NINA journals" are not from NINA.

For the interpretation of these observations, two general remarks can be added:

One is apt to explain a "high publishing activity" in terms of "high scientific productivity". This may be relevant on a micro-level (individual scientists or research groups), but most often not on a macro-level. Here, a high number of publications from a country in a specific area or set of journals will reflect the country's research profile and the priorities set in research policy and financing.

Possibly, the publishing (and research) profile at NINA has affected by research policy priorities on a national level which other institutions have been affected by as well, resulting in a situation where the specialization is less among institutions than across them.

*Appendix A*, in which the titles of the 135 NINA articles have been sorted by topics, seems to indicate a high degree of concentration on specific species and problems, although the research profile at NINA was probably never meant to reflect "Noah's selection".

## **NINA's scientific environment in Norway**

**Table 5. Norwegian scientists outside NINA publishing in the 54 "NINA journals" 1989-92 (cf. table 3). The table lists authors who have signed (or co-signed) a minimum of eight articles among 873 Norwegian articles in the 54 journals - other journals are not included.**

Slagsvold-T	Univ Oslo, Zool Museum	18
Jobling-M	Univ Tromso, Norwegian Coll Fishery Sci	17
Salbu-B	Agr Coll Norway, Isotope Lab	15
Storøbakker-T	Inst Aquaculture Res	13
Hessen-DG	Univ Oslo, Dept Biol, Div Zool	13
Christoffersen-N	Ctr Ind Res, Oslo	12
Stenseth-NC	Univ Oslo, Dept Biol, Div Zool	12
Inst Marine Res (Bergen, etc.)		108
Nævdal-G	Univ Bergen, Dept Fisheries Biol	103
Univ Oslo, Dept Biol, Div Zool		63
Univ Bergen, Dept Fisheries & Marine Biol		59
Aksnes-DL	Univ Bergen, Dept Fisheries & Marine Biol	48
Univ Tromso, Norwegian Coll Fisheries Sci		48
Liffield-JT	Univ Oslo, Zool Museum	9
Inst Aquaculture Res (Ås, Sunndalsøra, etc.)		47
Scip-dlm	Univ Oslo, Dept Chem	43
Univ Trondheim, Dept Zool		43
Birks-HJB	Univ Bergen, Inst BOT	8
Univ Bergen, Dept Anim Ecol		29
Hansen-T	Inst Marine Res	27
Univ Oslo, Zool Museum		27
Aas-RA	Univ Oslo, Dept Biol, Div Zool	22
Univ Oslo, Dept Chem		22
Lydersen-C	Univ-Oslo, DIV Biol, Dept Gen Physiol	8
Univ Bergen, Inst Bot		20
Univ Oslo, Dept Biol, Div Gen Physiol		20
Natl Vet Inst, Oslo		19
Norwegian Polar Res Inst, Oslo		19
Agr Univ Norway, Isotope & Electron Microscopy Lab		17
Ctr Ind Res, oslo		17
Univ Oslo, Bot Garden & Museum		17
Univ Tromso, Tromso Museum, Dept Marine Biol		15
Norwegian Coll Vet Med, Oslo		15
Univ Oslo, Dept Biol, Marine Zool & Chem Sect		15
Directorate Nat Management, Trondheim		14
Univ Bergen, Zool Lab		14
Univ Oslo, Dept Biol, Div Bot		14
Univ Trondheim, Trondheim Biol Stn		12
Agr Univ Norway, Norwegian Forest Res Inst		11
Directorate Fisheries, Inst Nutr, Bergen		11
Univ Bergen, Dept Microbiol & Plant Physiol		11
Univ Oslo, Dept Biol, Marine Bot Sect		11
Natl Inst Publ Hlth, Oslo		10
Univ Trondheim, Museum Nat Hist & Archaeol		10
Other Norwegian institutions		256
Total number of addresses cited		<b>1059</b>

As a follow-up to the last remarks made above, we shall present some information about the total of 873 Norwegian articles in the 54 "NINA journals". By using information about the authors' names and addresses, it is possible to identify NINA's closest "scientific environment" in Norway, that is, the institutions and scientists outside of NINA that publish most frequently in the same journals.

*Table 4* gives a list of other Norwegian institutions most often referred as authors' addresses in the 54 journals. It should be remembered that the institutions are not represented with their total output in SCI journals. The ranking rather reflects the degree of closeness to NINA's publishing profile.

Three institutions outside the universities are relatively active in publishing in the same journals as NINA: *Institute for Marine Research*, *Institute for Aquaculture Research* and *Norwegian Institute for Water Research*. At the universities, the zoological departments in Oslo and Trondheim, the Department for fisheries and marine biology in Bergen and the College for fishery sciences in Tromsø, also publish frequently in the "NINA journals".

*Table 5* lists individual Norwegian scientists at other institutions than NINA who have signed (or co-signed) eight or more articles in the "NINA journals" during 1989-92. Again, the table does not rank scientists by productivity (the authors may have published several articles in other journals), but rather measures how close a scientist's specialization is to the research activities at NINA.

## NINA articles by year of publication

As we start a closer analysis of the 135 SCI publications from NINA, we shall notice that the publications are not evenly distributed among the four years 1989-92. *Table 6* shows that there was an increase from 24 articles in 1989 to almost twice as many in 1991, after which the number drops to 31 articles in 1992.

Such changes can be due to variations in publication schedules and volume sizes in journals, and in the data registration in the SCI, when a small number of articles and journals is considered. But this is not the case here. When we measure NINA's articles as a percentage of all Norwegian articles in the same journals (second line in *table 6*), we find that this percentage increases and drops at the same rate as the articles from NINA. And when we measure NINA's output as a percentage of the total Norwegian output in the SCI database (third line), this percentage shows the same changes. The publication channels and the data registration are stable; NINA's output is not.

When considering the trend in *table 6*, one should remember the time lag from the research is performed until it is published. The last stage, from the accepted final version of the paper to the published issue, may take up to a year, and the writing, refereeing and revision of the paper often longer. In our context, this means that the published research in many cases has preceded the period focused on in the evaluation of NINA.

**Table 6. Number of NINA articles in SCI journals per year 1989-92. Percentages refer to the total of Norwegian articles in the same 54 journals that published NINA articles, and in the SCI database as a whole.**

	1989	1990	1991	1992	Total
Number of NINA articles in SCI journals	24	33	47	31	135
NINA articles in per cent of all Norwegian articles in NINA's 54 SCI journals	10,6%	16,5%	20,5%	14,2%	15,5%
NINA articles in per cent of all Norwegian articles in all SCI journals	0,9%	1,1%	1,6%	0,9%	1,1%

## The authors of NINA's SCI articles

The 135 articles from NINA have been signed with a total of 372 authors' names, which means that there are 2,8 authors per article on average (normally from one to four; up to ten in one instance).

Several names occur in more than one article, and when counting unique names, we find that *161 different scientists* have contributed to the 135 articles. Many of them do not work at NINA, but are co-authors in teams involving scientists at NINA. We shall return to a closer analysis of the pattern of external collaboration.

In *table 7*, we have counted articles per scientist in two ways. In the first column, we take into consideration that more than one author may contribute to one article. Each article has been fractionalized according to its number of authors (as an example, an article with four authors is counted as 0,25 articles by each of them). The sum of sum of such fractionalized articles per author is shown. The column total amounts to the 135 "real" articles.

The second column shows the number of articles signed or co-signed by the author. Here, one article with four authors will be counted four times. The sum total in this column amounts to the 372 author's names in the 135 articles. Authors with less than the sum of one fractionalized article or two signed articles are not specified in the table.

When regarding the ranking list, our initial general remarks about the SCI as a database should be taken into account: the relative incompleteness of its coverage of NINA's scientific publications as a whole, and its "preference" for types of research that are often published in core journals.

In a fourth column in *table 7*, the name of a "main co-author" is given in cases where half or more of the articles have been written together with another author ranking with a higher number of fractionalized articles. *Table 8* gives a list of co-authorship relations found in a minimum of two articles, and should be of help in identifying the research groups.

**Table 7. Number of articles per author in 135 SCI articles from NINA 1989-92, and main co-authorship relations. Authors with less than 2 signed articles or the sum of 1 fractionalized articles are not specified.**

Column A: Sum of articles, fractionalized by the number of authors contributing to each of them.

Column B: Number of (un-fractionalized) articles the author contributed to.

Column C: Co-author: If half or more of the articles are co-authored with higher ranking authors on the list, the highest ranking author among these is mentioned.

Author:	A	B	C	Author:	A	B	C
Jonsson-B	9,5	31		Furness-RW	1,0	2	<i>Barrett-RT</i>
Hansen-LP	7,0	19	<i>Jonsson-B</i>	Heggberget-TM	1,0	1	
				Kvam-T	1,0	1	
Erikstad-KE	5,5	10		Lofaldli-L	1,0	3	<i>Kalas-JA</i>
Jarvi-T	4,0	6		Moen-V	1,0	2	
Jensen-AJ	3,8	9		Myrberget-S	1,0	1	
				Svalastog-D	1,0	1	
Odland-A	3,3	4		Vader-W	1,0	2	
Skogland-T	3,3	4		Bakke-TA	0,9	3	<i>Hansen-LP</i>
Mwalyosi-RBB	3,0	3		Jansen-PA	0,9	3	<i>Hansen-LP</i>
Saether-BE	2,8	5		Ryman-N	0,9	3	<i>Hindar-K</i>
Johnsen-BO	2,8	8	<i>Jensen-AJ</i>	Snorrason-SS	0,9	5	<i>Jonsson-B</i>
Langeland-A	2,7	7		Gausen-D	0,8	2	
Labeelund-JH	2,7	7		Rov-N	0,8	3	
Hindar-K	2,6	7		Strann-KB	0,8	2	
Andersen-R	2,3	4	<i>Saether-BE</i>	Salbu-B	0,7	3	<i>Muniz-IP</i>
Jonsson-N	2,1	7	<i>Jonsson-B</i>	Ugedal-O	0,7	3	<i>Jonsson-B</i>
Sandlund-OT	2,1	9	<i>Jonsson-B</i>	Hoglund-J	0,7	2	<i>Kalas-JA</i>
Muniz-IP	2,0	5		Utter-F	0,7	2	<i>Hindar-K</i>
Bjorge-A	2,0	2		Ekker-M	0,6	2	<i>Rov-N</i>
Bustnes-JO	2,0	4	<i>Erikstad-KE</i>	Mehlum-F	0,6	2	<i>Gabrielsen-GW</i>
Hoiland-K	2,0	3		Jonasson-PM	0,6	4	<i>Jonsson-B</i>
Korsmo-H	2,0	2		Malmquist-HJ	0,6	4	<i>Jonsson-B</i>
Hesthagen-T	1,8	3		Skulason-S	0,6	4	<i>Jonsson-B</i>
Naesje-TF	1,7	7	<i>Jonsson-B</i>	Naeumann-R	0,5	2	<i>Jonsson-B</i>
Kalas-JA	1,7	5		Roskaft-E	0,5	2	
Pedersen-HC	1,5	3		Steinnes-E	0,5	2	
Barrett-RT	1,3	3		Forseth-T	0,5	2	<i>Jonsson-B</i>
Gabrielsen-GW	1,1	3		Njastad-O	0,5	2	<i>Jonsson-B</i>
Heggberget-TG	1,1	5	<i>Jensen-AJ</i>	Thorpe-JE	0,4	2	<i>Jonsson-B</i>
Lydersen-E	1,0	4	<i>Muniz-IP</i>	Saettem-LM	0,3	2	<i>Jonsson-B</i>
Poleo-ABS	1,0	4	<i>Muniz-IP</i>	Lindem-T	0,2	2	<i>Jonsson-B</i>
Fiske-P	1,0	3	<i>Kalas-JA</i>	96 other authors	27,3	96	
Fleming-IA	1,0	2					
Fry-G	1,0	2		TOTAL	135	372	



**Table 8. Co-authorship relations found in a minimum of two articles each among the 135 SCI articles from NINA 1989-92.**

---

Barrett-RT, Furness-RW  
Erikstad-KE, Bustnes-JO  
Gabrielsen-GW, Mehlum-F  
Hansen-LP, Bakke-TA, Jansen-PA  
Hindar-K, Ryman-N, Utter-F  
Jensen-AJ, Heggberget-TG, Johnsen-BO, Jonsson-B, Labeelund-JH, Naesje-TF, Sættem-LM  
Jensen-AJ, Johnsen-BO  
Jonsson-B, Hansen-LP  
Jonsson-B, Hansen-LP, Jonsson-N  
Jonsson-B, Hansen-LP, Thorpe-JE  
Jonsson-B, Hindar-K  
Jonsson-B, Jonsson-N  
Jonsson-B, Langeland-A  
Jonsson-B, Naesje-TF  
Jonsson-B, Naesje-TF, Sandlund-OT  
Jonsson-B, Sandlund-OT  
Jonsson-B, Sandlund-OT, Jonasson-PM, Lindem-T, Malmquist-HJ, Skulason-S, Snorrason-SS  
Jonsson-B, Ugedal-O, Forseth-T  
Jonsson-B, Ugedal-O, Naeumann-R, Njastad-O  
Kalas-JA, Fiske-P  
Kalas-JA, Høglund-J  
Kalas-JA, Lofaldli-L  
Muniz-IP, Lydersen-E, Poleo-ABS, Salbu-B  
Rov-N, Ekker-M  
Sæther-BE, Andersen-R

---

## External collaboration within Norway

In 52 of the 135 NINA articles, other Norwegian institutions appear as addresses. In most cases, this is a sign of collaboration between scientists at NINA and other Norwegian scientists. In a few cases, another institution is referred to as the address of a NINA article, although the research presumably was organized and financed by NINA.

*Table 9* shows that the most frequent collaboration is with the Department of Zoology at the University of Trondheim. Collaboration with Institute for Marine Research and Institute for Aquaculture Research is less frequent than could have been expected from the frequency of articles from these institutions in "NINA journals" (see *table 4*). This may be an indication that similarity in research profile cannot be deducted directly from the fact that articles appear in the same journal (see our discussion about specialization on page 7 above).

**Table 9. Norwegian institutions appearing in NINA articles as the addresses of co-authors. The table shows the number of times an institution was cited as an author's address in 52 articles (from a total of 135) that carried addresses to other Norwegian institutions.**

Univ Trondheim, Dept Zool	11
Univ Oslo, Zool Museum	5
Univ Tromso, Dept Marine Biol	5
Univ Tromso, Dept Zool	5
Univ Oslo, Dept Biol, Div Gen Physiol	4
Agr Univ Norway, Isotope Laboratory	3
Norwegian Polar Res Inst, Oslo	3
Univ Bergen, Dept Anim Ecol	3
Univ Trondheim, Norwegian Inst Technol	3
Inst Marine Res (Bergen, etc.)	2
Norwegian Inst Water Res, Oslo	2
Univ Bergen, Inst Bot	2
Univ Oslo, Inst Phys	2
Univ Trondheim, Dept Chem	2
Univ Trondheim, Museum Nat Hist & Archaeol	2
Other institutions cited once	20
Total number addresses cited	73

## **International collaboration**

In 28 of the 135 NINA articles, institutions outside Norway appear as addresses. In these cases, scientists at NINA have collaborated internationally. In six articles, there is collaboration with more than one other country.

The international collaboration is most often with Sweden (8 articles), Scotland (6 articles), Denmark (5 articles) and Iceland (5 articles). *Table 10* shows the institutions that appear in articles with international collaboration.

**Table 10. Institutions outside Norway appearing in NINA articles as the addresses of co-authors. The table shows the number of times an institution was cited as an author's address in 28 articles (from a total of 135) that carried addresses to institutions outside Norway.**

---

Sweden - 8 Articles

- 1 Nordic Inst Urban & Reg Planning, Stockholm
- 1 Swedish Univ Agr Sci, Dept Anim Nutr & Management, Uppsala
- 1 Swedish Univ Agr Sci, Dept Aquaculture, Umea
- 1 Univ Gothenburg, Dept Zool
- 1 Univ Lund, Dept Ecol Limnol
- 2 Univ Stockholm, Dept Genet
- 2 Univ Uppsala, Dept Zool

Scotland - 6 Articles

- 2 Dept Agr & Fisheries Scotland, Freshwater Fisheries Lab, Pitlochry
- 1 Dept Agr & Fisheries Scotland, Marine Lab, Aberdeen
- 1 Royal Bot Gardens, Edinburgh
- 2 Univ Glasgow, Dept Zool, Appl Ornithol Unit

Denmark - 5 Articles

- 1 Danish Inst Fisheries & Marine Res, Inland Fisheries Lab, Silkeborg
- 4 Univ Copenhagen, Freshwater Biol Lab, Dk 3400 Hillerod, Denmark

Iceland - 5 Articles

- 1 Icelandic Inst Teacher Educ, Reykjavik
- 1 Inst Marine Res, Reykjavik
- 5 Univ Iceland, Inst Biol, Reykjavik

Canada - 3 Articles

- 1 Mem Univ Newfoundland, Dept Biol
- 1 Mem Univ Newfoundland, Ctr Ocean Sci
- 1 Mem Univ Newfoundland, Dept Psychol
- 1 Univ British Columbia, Dept Zool
- 1 Univ Toronto, Dept Zool

USA - 3 Articles

- 2 Natl Marine Fisheries Serv, Nw Fisheries Ctr, Seattle
- 1 Clemson Univ, Dept Pk Recreat & Tourism Management, Clemson

England - 2 Articles

- 1 Univ Bath, Dept Biochem
- 1 Univ Cambridge, Comp Lab

Netherlands - 2 Articles

- Delft Tech Univ, Inst Interfac Reactor, Delft
- DLO, Inst Forestry & Nat Res, Ibm, Arnhem

Finland - 1 Article

- Univ Joensuu, Dept Biol

Poland - 1 Article

- Univ Warsaw, Inst Biol
-

## Appendix A: The titles of 135 SCI articles, ordered by topics

### Atlantic Salmon (Salmo-Salar)

- Title: The Effect of Constant 12-Hour Light and Simulated Natural Light on Growth, Cardiac Somatic Index and Smolting in the Atlantic Salmon (Salmo-Salar)
- Title: Synergistic Effect on Mortality in Atlantic Salmon, Salmo-Salar, Smolt Caused by Osmotic-Stress and Presence of Predators
- Title: Lower Prevalence of Fin Erosion in Mature Than in Immature Atlantic Salmon (Salmo-Salar) Parr
- Title: Salmon Ranching Experiments in the River Imsa - Effect of Timing of Atlantic Salmon (Salmo-Salar) Smolt Migration on Survival to Adults
- Title: Temperature Requirements in Atlantic Salmon (Salmo-Salar), Brown Trout (Salmo-Trutta), and Arctic Char (Salvelinus-Alpinus) from Hatching to Initial Feeding Compared with Geographic-Distribution
- Title: Influence of Parr Maturity on Emigration of Smolting Atlantic Salmon (Salmo-Salar)
- Title: Home Range of Juvenile Atlantic Salmon, Salmo-Salar, and Brown Trout, Salmo-Trutta, in a Norwegian Stream
- Title: Production of Juvenile Atlantic Salmon, Salmo-Salar L, and Brown Trout, Salmo-Trutta L, Within Different Sections of a Small Enriched Norwegian River
- Title: Differences in the Host-Resistance of Atlantic Salmon, Salmo-Salar L, Stocks to the Monogenean Gyrodactylus-Salaris Malmberg, 1957
- Title: Distribution of Adult Recaptures from Hatchery-Reared Atlantic Salmon (Salmo-Salar) Smolts Released in and Offshore of the River Surna, Western Norway
- Title: Effects of Elevated Winter Temperature on Seawater Adaptability, Sexual Rematuration, and Downstream Migratory Behavior in Mature Male Atlantic Salmon Parr (Salmo-Salar)
- Title: Farmed Atlantic Salmon (Salmo-Salar) in Fisheries and Rivers in Norway
- Title: Experimental Transmission of Gyrodactylus-Salaris Malmberg, 1957 (Platyhelminthes, Monogenea) from the Atlantic Salmon (Salmo-Salar) to the European Eel (Anguilla-Anguilla)
- Title: Initial Feeding Time of Atlantic Salmon, Salmo-Salar, Alevins Compared to River Flow and Water Temperature in Norwegian Streams
- Title: Evidence of a Genetic Component in the Seasonal Return Pattern of Atlantic Salmon, Salmo-Salar L
- Title: Energetic Cost of Spawning in Male and Female Atlantic Salmon (Salmo-Salar L)
- Title: The Influence of Temperature on Aqueous Aluminum Chemistry and Survival of Atlantic Salmon (Salmo-Salar L) Fingerlings
- Title: Site Specificity of Gyrodactylus-Salaris Malmberg, 1957 (Monogenea) on Atlantic Salmon (Salmo-Salar L) in the River Lakselva, Northern Norway
- Title: Infection of Atlantic Salmon, Salmo-Salar L, by Gyrodactylus-Salaris, Malmberg 1957, in the River Lakselva, Misvaer in Northern Norway
- Title: Host Specificity and Dispersal Strategy in Gyrodactylid Monogeneans, with Particular Reference to Gyrodactylus-Salaris (Platyhelminthes, Monogenea)
- Title: A Female Atlantic Salmon, Salmo-Salar L Maturing Sexually in the Parr Stage
- Title: Significance of Mature Male Parr in a Small Population of Atlantic Salmon (Salmo-Salar)
- Title: The Effects of Male-Dominance, Secondary Sexual Characteristics and Female Mate Choice on the Mating Success of Male Atlantic Salmon Salmo-Salar
- Title: Large-Scale Escapes of Farmed Atlantic Salmon (Salmo-Salar) into Norwegian Rivers Threaten Natural-Populations
- Title: The Effects of Naturally-Occurring High and Low-Molecular-Weight Inorganic and Organic-Species on the Yolk-Sack Larvae of Atlantic Salmon (Salmo-Salar L) Exposed to Acidic Aluminum-Rich Lake Water
- Title: Effects of Exogenous Thyroxine or Prior Exposure to Raised Water-Flow on the Downstream Movement of Hatchery-Reared Atlantic Salmon Smolts
- Title: Partial Segregation in the Timing of Migration of Atlantic Salmon of Different Ages
- Title: Does Juvenile Experience Affect Migration and Spawning of Adult Atlantic Salmon

- Title: Differences in Life-History and Migratory Behavior Between Wild and Hatchery-Reared Atlantic Salmon in Nature
- Title: Attempts to Reduce the Impact of Reared Atlantic Salmon on Wild in Norway
- Title: Mutual Impact of Wild and Cultured Atlantic Salmon in Norway
- Title: Variation in Age, Size and Repeat Spawning of Adult Atlantic Salmon in Relation to River Discharge
- Title: Special Issue - Interactions Between Cultured and Wild Atlantic Salmon - Introduction
- Title: The Effect of Timing of Atlantic Salmon Smolt and Post-Smolt Release on the Distribution of Adult Return
- Title: Cumulative Acute Physiological Stress in Atlantic Salmon Smolts - The Effect of Osmotic Imbalance and the Presence of Predators

#### Norwegian Brown Trout (Salmo-Trutta)

- Title: Life-History and Habitat Use of Norwegian Brown Trout (Salmo-Trutta)
- Title: Latitudinal Variation in Life-History Characteristics of Sea-Run Migrant Brown Trout Salmo-Trutta
- Title: Growth of Young Migratory Brown Trout Salmo-Trutta Correlated with Water Temperature in Norwegian Rivers
- Title: Interpopulation Variation in Male Parr Maturation of Anadromous Brown Trout (Salmo-Trutta) in Norway
- Title: Growth and Survival Rates of the Anadromous Trout, Salmo-Trutta, from the Vardnes River, Northern Norway
- Title: Interpopulation Variation in Reproductive Traits of Anadromous Female Brown Trout, Salmo-Trutta L
- Title: Genetic-Relationships Among Landlocked, Resident, and Anadromous Brown Trout, Salmo-Trutta L
- Title: A Note on Maximum Age of Brown Trout, Salmo-Trutta L
- Title: Longevity, Body Size, and Growth in Anadromous Brown Trout (Salmo-Trutta)
- Title: Resource Partitioning and Niche Shift in Arctic Charr Salvelinus-Alpinus and Brown Trout Salmo-Trutta
- Title: Radioisotope Method for Estimating Food-Consumption by Brown Trout (Salmo-Trutta)
- Title: Radiocesium Turnover in Arctic Charr (Salvelinus-Alpinus) and Brown Trout (Salmo-Trutta) in a Norwegian Lake
- Title: Piscivory by Brown Trout Salmo-Trutta L and Arctic Charr Salvelinus-Alpinus (L) in Norwegian Lakes
- Title: Effects of Temperature and Body Size on Radiocesium Retention in Brown Trout, Salmo-Trutta
- Title: Home Range of Juvenile Atlantic Salmon, Salmo-Salar, and Brown Trout, Salmo-Trutta, in a Norwegian Stream
- Title: Production of Juvenile Atlantic Salmon, Salmo-Salar L, and Brown Trout, Salmo-Trutta L, Within Different Sections of a Small Enriched Norwegian River
- Title: Temperature Requirements in Atlantic Salmon (Salmo-Salar), Brown Trout (Salmo-Trutta), and Arctic Char (Salvelinus-Alpinus) from Hatching to Initial Feeding Compared with Geographic-Distribution

#### Arctic Charr (Salvelinus-Alpinus)

- Title: Diet Differentiation in Polymorphic Arctic Charr in Thingvallavatn, Iceland
- Title: Population-Dynamics of the Planktivorous Arctic Charr Salvelinus-Alpinus (Murta) in Thingvallavatn
- Title: Threespine Stickleback Gasterosteus Aculeatus in Thingvallavatn - Habitat and Food in a Lake Dominated by Arctic Charr Salvelinus Alpinus
- Title: The Arctic Charr Salvelinus-Alpinus in Thingvallavatn
- Title: Resource Partitioning and Niche Shift in Arctic Charr Salvelinus-Alpinus and Brown Trout Salmo-Trutta
- Title: Radiocesium Turnover in Arctic Charr (Salvelinus-Alpinus) and Brown Trout (Salmo-Trutta) in a Norwegian Lake

- Title: Piscivory by Brown Trout *Salmo-Trutta* L and Arctic Charr *Salvelinus-Alpinus* (L) in Norwegian Lakes
- Title: Temperature Requirements in Atlantic Salmon (*Salmo-Salar*), Brown Trout (*Salmo-Trutta*), and Arctic Char (*Salvelinus-Alpinus*) from Hatching to Initial Feeding Compared with Geographic-Distribution

#### Willow Grouse (*Lagopus-Lagopus*)

- Title: Effects of Exogenous Prolactin on Parental Behavior in Free-Living Female Willow Ptarmigan *Lagopus-L-Lagopus*
- Title: Repeatability of Clutch Size in Willow Grouse *Lagopus-Lagopus*
- Title: Cryptic Behavior in Molting Hen Willow Ptarmigan *Lagopus-Lagopus-Lagopus* During Snow Melt
- Title: Does Intense Herbivory from Microtine Rodents Induce Production of Plant Estrogens in the Spring Food Plants of Willow Ptarmigan *Lagopus-1-Lagopus*

#### Great Snipe (*Gallinago-Media*)

- Title: Effects of Radio Packages on Great Snipe During Breeding
- Title: Sexual Dimorphism in the Lekking Great Snipe
- Title: The Costs of Secondary Sexual Characters in the Lekking Great Snipe (*Gallinago-Media*)
- Title: Habitat Selection and Diet of Great Snipe *Gallinago-Media* During Breeding

#### Moose (*Alces-Alces*)

- Title: Resource Limitation in a Generalist Herbivore, the Moose *Alces-Alces* - Ecological Constraints on Behavioral Decisions
- Title: Optimal Twig-Size Selection of a Generalist Herbivore, the Moose *Alces-Alces* - Implications for Plant Herbivore Interactions
- Title: Habitat Deterioration and the Migratory Behavior of Moose (*Alces-Alces* L) in Norway
- Title: Functional-Response During Winter of a Herbivore, the Moose, in Relation to Age and Size

#### Common Eider (*Somateria-Mollissima*)

- Title: Size Selection of Common Mussels, *Mytilus-Edulis*, by Common Eiders, *Somateria-Mollissima*, Energy Maximization or Shell Weight Minimization
- Title: Effects of Patagial Tags on Laying Date and Egg Size in Common Eiders
- Title: Parental Care in the Common Eider (*Somateria-Mollissima*) - Factors Affecting Abandonment and Adoption of Young
- Title: The Role of Failed Nesters and Brood Abandoning Females in the Creching System of the Common Eider *Somateria-Mollissima*

#### Gray Seal (*Halichoerus Grypus*) and Harbor Seal (*Phoca-Vitulina*)

- Title: Trend in the Pup Production of Gray Seals *Halichoerus Grypus* At Froan, Norway, from 1974 to 1987
- Title: Status of the Harbor Seal *Phoca-Vitulina* L in Norway
- Title: Chronic Oil-Fouling of Gray Seal Pups at the Froan Breeding Ground, Norway
- Title: The Reproductive-Biology of the Harbor Seal, *Phoca-Vitulina* L, in Norwegian Waters

#### Wild Reindeer

- Title: Natural-Selection of Wild Reindeer Life-History Traits by Food Limitation and Predation
- Title: Density Dependence in a Fluctuating Wild Reindeer Herd - Maternal vs Offspring Effects

#### Other species

- Title: Diurnal Vertical and Seasonal Horizontal Distribution Patterns of Mysis-Relicta in a Large Norwegian Lake
- Title: The Diel Activity of Carabid Beetles (Coleoptera) North of the Arctic-Circle, with Particular Reference to *Patrobus-Assimilis* Chaud and *Notiophilus-Aquaticus* L

- Title: Selenium, Mercury, Arsenic and Cadmium in the Lifecycle of the Dunlin, *Calidris-Alpina*, a Migrant Wader
- Title: Capelin Selection by Common and Brunnichs Guillemots During the Prelaying Season
- Title: Resource Partitioning Among 7 Carabid Species on Hardangervidda, Southern-Norway
- Title: Marriage Entrapment by Solitary Mothers - A Study on Male Deception by Female Pied Flycatchers
- Title: Flower Substances in the Extremely Disjunct Species *Oxytropis-Deflexa* and Their Phyto-geographical Implications
- Title: Diets of Shags *Phalacrocorax-Aristotelis* and Cormorants *Phalacrocorax-Carbo* in Norway and Possible Implications for Gadoid Stock Recruitment
- Title: Some *Cortinarius* Spp (Agaricales) of the Cooloola Sand-Mass, Queensland, Australia
- Title: The Genus *Gymnopilus* in Norway
- Title: Establishment of Breeding Populations and Population Development in the Canada Goose *Branta-Canadensis* in Norway
- Title: Field and Laboratory Metabolism and Thermoregulation in Dovekies (Alle-Alle)
- Title: Coexistence with Similar Life-Cycles in 2 Species of Fresh-Water Copepods (Crustacea)
- Title: Year-Class Fluctuations in Vendace, *Coregonus-Albula* (Linnaeus) - Whos Got the Upper Hand in Intraspecific Competition
- Title: On the Ecology of *Thelypteris Limbosperma* - A Synecological Investigation of T Limbo-sperma-Dominated Stands in W Norway
- Title: Wintering Purple Sandpipers *Calidris-Maritima* in Troms County, Northern Norway
- Title: Ontogenic Changes in Habitat Use by Whitefish, *Coregonus-Lavaretus*
- Title: The Nominate Lesser Black-Backed Gull *Larus-Fuscus-Fuscus*, a Gull with a Tern-Like Feeding Biology, and Its Recent Decrease in Northern Norway
- Title: Abundance and Population-Structure of Perch (*Perca-Fluviatilis* L) in Some Acidic Norwegian Lakes
- Title: Changes in Use of Lake Habitat by Experimentally Segregated Populations of Cutthroat Trout and Dolly Varden Char
- Title: Reproduction in the European Lynx, *Lynx-Lynx*
- Title: Energetics of Black-Legged Kittiwake *Rissa-Tridactyla* Chicks
- Title: Reproductive-Behavior of Hatchery and Wild Coho Salmon (*Oncorhynchus-Kisutch*) - Does It Differ
- Title: Genetic Changes in a Vendace *Coregonus-Albula* (L) Population, 92 Years After Introduction
- Title: A Synecological Investigation of *Matteuccia-Struthiopteris* - Dominated Stands in Western Norway

#### Ecosystems and biological behaviour

- Title: Survival Rates in Relation to Body-Weight in European Birds
- Title: Determination of Available Phosphorus for Phytoplankton Populations in Lakes and Rivers of Southeastern Norway
- Title: Effects of Fish Removal on the Limnetic Ecosystem of a Eutrophic Lake
- Title: Behavioral-Responses of Potential Hosts Towards Artificial Cuckoo Eggs and Dummies
- Title: Ecological Evaluation for Wildlife Corridors and Buffer Zones for Lake Manyara National-Park, Tanzania, and Its Immediate Environment
- Title: Genetic-Effects of Cultured Fish on Natural Fish Populations
- Title: Genetic-Effects of Aquaculture on Natural Fish Populations
- Title: Quantitative Vegetation-Environment Relationships in West Norwegian Tall-Fern Vegetation
- Title: The *Gyrodactylus* Story in Norway
- Title: Habitat Switch and Niche Overlap in Coregonid Fishes - Effects of Zooplankton Abundance
- Title: A Synecological Investigation of *Athyrium-Distentifolium*-Dominated Stands in Western Norway
- Title: Production of Fish Stocks in Thingvallavatn, Iceland
- Title: Influence of Livestock Grazing on Range Condition in South-West Masailand, Northern Tanzania
- Title: Field Margins - Can They Enhance Natural Enemy Population-Densities and General Arthropod Diversity on Farmland
- Title: What Are the Effects of Predators on Large Ungulate Populations



- Title: Plant Phenology and the Benefits of Migration in a Temperate Ungulate
- Title: The Prey and Diving Depths of Seabirds on Hornoy, North Norway After a Decrease in the Barents Sea Capelin Stocks
- Title: Winter Diets of 4 Seabird Species in the Barents Sea After a Crash in the Capelin Stock
- Title: Restriction Fragment Analysis of Mitochondrial-DNA in Common Murres, *Uria-Aalge*, from 4 Norwegian Seabird Colonies
- Title: Summer Diet of Seabirds Feeding in Sea-Ice-Covered Waters Near Svalbard
- Title: Seabirds and Fish Declines

Environmental issues, technology, research

- Title: When Hot Geology Meets Cold Climate on an Island
- Title: The Influences of Temperature on Aqueous Aluminum Chemistry
- Title: Investigations of Radiocesium in the Natural Terrestrial Environment in Norway Following the Chernobyl Accident
- Title: Problems Related to Conservation of Coniferous Forest in Norway
- Title: Conserving Coniferous Forest in Norway - A Critical Time for International Environmental Obligations
- Title: Formation and Dissolution Kinetics of  $Al(OH)_3$  (S) in Synthetic Fresh-Water Solutions
- Title: Fresh-Water Acidification - Its Effects on Species and Communities of Fresh-Water Microbes, Plants and Animals
- Title: Resource Potentials of the Rufiji River Basin, Tanzania
- Title: Conservation Biology Faces Reality
- Title: Common Access Tradition and Wilderness Management in Norway - A Paradox for Managers
- Title: Biomanipulation Development in Norway
- Title: Quantifying External and Internal Nitrogen and Phosphorus Pools, as Well as Nitrogen and Phosphorus Supplied Through Remineralization, in Coastal Marine Plankton by Means of a Dilution Technique
- Title: Electrofishing - Theory and Practice with Special Emphasis on Salmonids
- Title: Evaluating Small-Format Photogrammetry for Forest and Wildlife Surveys - Euclidean vs Fractal Geometry

## Appendix B: 135 SCI articles from NINA, ordered by name of first author

**Albon-SD, Langvatn-R.** 1992. Plant Phenology and the Benefits of Migration in a Temperate Ungulate. *OIKOS* 65(3):502-513.

NORWEGIAN-INST-NAT-RES, N-7005 TRONDHEIM, NORWAY

**Andersen-R, Saether-BE.** 1992. Functional-Response During Winter of a Herbivore, the Moose, in Relation to Age and Size. *ECOLOGY* 73(2):542-550.

NORWEGIAN-INST-NAT-RES, MAMMALIAN ECOL RES GRP, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Andersen-R.** 1991. Habitat Deterioration and the Migratory Behavior of Moose (*Alces-Alces L*) in Norway. *JOURNAL OF APPLIED ECOLOGY* 28(1):102-108.

NORWEGIAN-INST-NAT-RES, MAMMALIAN ECOL RES GRP, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Andersen-T, Schartau-AKL, Paasche-E.** 1991. Quantifying External and Internal Nitrogen and Phosphorus Pools, as Well as Nitrogen and Phosphorus Supplied Through Remineralization, in Coastal Marine Plankton by Means of a Dilution Technique. *MARINE ECOLOGY-PROGRESS SERIES* 69(1-2):67-80.

UNIV-OSLO, DEPT BIOL, MARINE BOT SECT, POB 1069, N-0316 OSLO 3, NORWAY

**Andrew-JH, Jonsson-N, Jonsson-B, Hindar-K, Northcote-TG.** 1992. Changes in Use of Lake Habitat by Experimentally Segregated Populations of Cutthroat Trout and Dolly Varden Char. *ECOGRAPHY* 15(2):245-252.

NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY  
UNIV-BRITISH-COLUMBIA, DEPT ZOOL, VANCOUVER V6T-2A9, BC, CANADA

**Bakke-TA, Harris-PD, Jansen-PA, Hansen-LP.** 1992. Host Specificity and Dispersal Strategy in Gyrodactylid Monogeneans, with Particular Reference to *Gyrodactylus-Salaris* (Platyhelminthes, Monogenea). *DISEASES OF AQUATIC ORGANISMS* 13(1):63-74.

UNIV-OSLO, ZOOL MUSEUM, SARS GATE 1, N-0562 OSLO 5, NORWAY  
NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY  
UNIV-BATH, DEPT BIOCHEM, BATH BA2-7AY, AVON, ENGLAND

**Bakke-TA, Jansen-PA, Hansen-LP.** 1990. Differences in the Host-Resistance of Atlantic Salmon, *Salmo-Salar L*, Stocks to the Monogenean *Gyrodactylus-Salaris* Malmberg, 1957. *JOURNAL OF FISH BIOLOGY* 37(4):577-587.

UNIV OSLO, ZOOL MUSEUM, N-0562 OSLO 5, NORWAY  
INST NAT RES, N-7004 TRONDHEIM, NORWAY

**Bakke-TA, Jansen-PA, Hansen-LP.** 1991. Experimental Transmission of *Gyrodactylus-Salaris* Malmberg, 1957 (Platyhelminthes, Monogenea) from the Atlantic Salmon (*Salmo-Salar*) to the European Eel (*Anguilla-Anguilla*). *CANADIAN JOURNAL OF ZOOLOGY-JOURNAL CANADIEN DE ZOOLOGIE* 69(3):733-737.

UNIV-OSLO, ZOOL MUSEUM, SARS GT 1, N-0562 OSLO 5, NORWAY  
NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY

**Barrett-RT, Furness-RW.** 1990. The Prey and Diving Depths of Seabirds on Hornoy, North Norway After a Decrease in the Barents Sea Capelin Stocks. *ORNIS SCANDINAVICA* 21(3):179-186.

UNIV TROMSO, TROMSO MUSEUM, NORWEGIAN INST NAT RES, N-9000 TROMSO, NORWAY  
UNIV GLASGOW, DEPT ZOOL, APPL ORNITHOL UNIT, GLASGOW G12 8QQ, SCOTLAND

**Barrett-RT, Rov-N, Loen-J, Montevecchi-WA.** 1990. Diets of Shags *Phalacrocorax-Aristotelis* and Cormorants *Phalacrocorax-Carbo* in Norway and Possible Implications for Gadoid Stock Recruitment. *MARINE ECOLOGY-PROGRESS SERIES* 66(3):205-218.

UNIV TROMSO, TROMSO MUSEUM, NORWEGIAN INST NAT RES, N-9000 TROMSO, NORWAY  
NORWEGIAN INST NAT RES, N-7004 TRONDHEIM, NORWAY  
MEM UNIV NEWFOUNDLAND, DEPT BIOL, ST JOHNS A1B 3X9, NEWFOUNDLAND, CANADA  
MEM UNIV NEWFOUNDLAND, CTR OCEAN SCI, ST JOHNS A1B 3X9, NEWFOUNDLAND, CANADA  
MEM UNIV NEWFOUNDLAND, DEPT PSYCHOL, ST JOHNS A1B 3X9, NEWFOUNDLAND, CANADA

**Berg-OK, Jonsson-B.** 1990. Growth and Survival Rates of the Anadromous Trout, *Salmo-Trutta*, from the Vardnes River, Northern Norway. ENVIRONMENTAL BIOLOGY OF FISHES 29(2):145-154.

DIRECTORATE NAT MANAGEMENT, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
NORWEGIAN INST NAT RES, N-7004 TRONDHEIM, NORWAY

**Bergan-PI, Gausen-D, Hansen-LP.** 1991. Attempts to Reduce the Impact of Reared Atlantic Salmon on Wild in Norway. AQUACULTURE 98(1-3):319-324.

DIRECTORATE-NAT-MANAGEMENT, TUNGASLETTA 2, N-7400 TRONDHEIM, NORWAY  
NORWEGIAN-INST-NAT-RES, N-7400 TRONDHEIM, NORWAY

**Bergheim-A, Hesthagen-T.** 1990. Production of Juvenile Atlantic Salmon, *Salmo-Salar L*, and Brown Trout, *Salmo-Trutta L*, Within Different Sections of a Small Enriched Norwegian River. JOURNAL OF FISH BIOLOGY 36(4):545-562.

NORWEGIAN INST NAT RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
ROGALAND RES INST, N-4004 STAVANGER, NORWAY

**Berglund-I, Hansen-LP, Lundqvist-H, Jonsson-B, Eriksson-T, Thorpe-JE, Eriksson-LO.** 1991. Effects of Elevated Winter Temperature on Seawater Adaptability, Sexual Rematuration, and Downstream Migratory Behavior in Mature Male Atlantic Salmon Parr (*Salmo-Salar*). CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES 48(6):1041-1047.

SWEDISH-UNIV-AGR-SCI, DEPT AQUACULTURE SWEDISH, S-90183 UMEA, SWEDEN  
NINA, N-7004 TRONDHEIM, NORWAY  
DEPT-AGR-&-FISHERIES-SCOTLAND, FRESHWATER FISHERIES LAB, PITLOCHRY PH16-5LB, SCOTLAND

**Bjorge-A.** 1991. Status of the Harbor Seal *Phoca-Vitulina L* in Norway. BIOLOGICAL CONSERVATION 58(2):229-238.

UNIV-OSLO, NORWEGIAN INST NAT RES, POB 1037 BLINDERN, N-0315 OSLO 3, NORWAY

**Bjorge-A.** 1992. The Reproductive-Biology of the Harbor Seal, *Phoca-Vitulina L*, in Norwegian Waters. SARSIA 77(1):47-51.

UNIV-OSLO, NORWEGIAN INST NAT RES, POB 1037, N-0315 OSLO 3, NORWAY

**Blakar-I, Lovstad-O.** 1990. Determination of Available Phosphorus for Phytoplankton Populations in Lakes and Rivers of Southeastern Norway. HYDROBIOLOGIA 192(2-3):271-277.

NORWEGIAN INST NATURE RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
UNIV OSLO, DEPT LIMNOL, N-0315 OSLO 3, NORWAY

**Bohlin-T, Rasmussen-G, Saltveit-SJ, Heggberget-TG, Hamrin-S.** 1989. Electrofishing - Theory and Practice with Special Emphasis on Salmonids. HYDROBIOLOGIA 173(1):9-43.

UNIV GOTHENBURG, DEPT ZOOL, S-40031 GOTHENBURG, SWEDEN  
UNIV LUND, DEPT ECOL LIMNOL, POB 3065, S-22100 LUND, SWEDEN  
DIRECTORATE NATURE MANAGEMENT, DIV FISH RES, N-7000 TRONDHEIM, NORWAY  
DANISH INST FISHERIES & MARINE RES, INLAND FISHERIES LAB, DK-8600 SILKEBORG, DENMARK  
UNIV OSLO, MUSEUM ZOOL, LAB FRESHWATER ECOL & INLAND FISHERIES, OSLO 5, NORWAY

**Bretten-S, Gaare-E, Skogland-T, Steinnes-E.** 1992. Investigations of Radiocesium in the Natural Terrestrial Environment in Norway Following the Chernobyl Accident. ANALYST 117(3):501-503.

UNIV-TRONDHEIM, MUSEUM NAT SCI & ARCHAEOL, N-7004 TRONDHEIM, NORWAY  
NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY  
UNIV-TRONDHEIM, DEPT CHEM, N-7055 DRAGVOLL, NORWAY

**Bustnes-JO, Erikstad-KE.** 1990. Effects of Patagial Tags on Laying Date and Egg Size in Common Eiders. JOURNAL OF WILDLIFE MANAGEMENT 54(2):216-218.

UNIV TROMSO, TROMSO MUSEUM, DEPT ZOOL, N-9000 TROMSO, NORWAY  
UNIV TROMSO, TROMSO MUSEUM, NORWEGIAN INST NAT RES, N-9000 TROMSO, NORWAY  
UNIV TROMSO, TROMSO MUSEUM, DEPT MARINE BIOL, N-9000 TROMSO, NORWAY

**Bustnes-JO, Erikstad-KE.** 1990. Size Selection of Common Mussels, *Mytilus-Edulis*, by Common Eiders, *Somateria-Mollissima*, Energy Maximization or Shell Weight Minimization. CANADIAN JOURNAL OF ZOOLOGY-JOURNAL CANADIEN DE ZOOLOGIE 68(11):2280-2283.

UNIV TROMSO, TROMSO MUSEUM, DEPT ZOOL, N-9000 TROMSO, NORWAY  
UNIV TROMSO, TROMSO MUSEUM, NORWEGIAN INST NAT RES, N-9000 TROMSO, NORWAY  
UNIV TROMSO, TROMSO MUSEUM, DEPT MARINE BIOL, N-9000 TROMSO, NORWAY

**Bustnes-JO, Erikstad-KE.** 1991. Parental Care in the Common Eider (*Somateria-Mollissima*) - Factors Affecting Abandonment and Adoption of Young. *CANADIAN JOURNAL OF ZOOLOGY-JOURNAL CANADIEN DE ZOOLOGIE* 69(6):1538-1545.

UNIV-TROMSO, TROMSO MUSEUM, NORWEGIAN INST NAT RES, N-9000 TROMSO, NORWAY

**Bustnes-JO, Erikstad-KE.** 1991. The Role of Failed Nesters and Brood Abandoning Females in the Creching System of the Common Eider *Somateria-Mollissima*. *ORNIS SCANDINAVICA* 22(4):335-339.

UNIV-TROMSO, NORWEGIAN INST NAT RES, TROMSO MUSEUM, N-9000 TROMSO, NORWAY

**Dennis-P, Fry-GLA.** 1992. Field Margins - Can They Enhance Natural Enemy Population-Densities and General Arthropod Diversity on Farmland. *AGRICULTURE ECOSYSTEMS & ENVIRONMENT* 40(1-4):95-115.

NORWEGIAN-AGR-UNIV, NORWEGIAN INST NAT RES, N-1432 AS, NORWAY

**Egidius-E, Hansen-LP, Jonsson-B, Naevdal-G.** 1991. Mutual Impact of Wild and Cultured Atlantic Salmon in Norway. *JOURNAL DU CONSEIL* 47(3):404-410.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7000 TRONDHEIM, NORWAY

INST-MARINE-RES, N-5024 BERGEN, NORWAY

UNIV-BERGEN, DEPT FISHERIES BIOL, N-5024 BERGEN, NORWAY

**Ekker-M, Lorentsen-SH, Rov-N.** 1992. Chronic Oil-Fouling of Gray Seal Pups at the Froan Breeding Ground, Norway. *MARINE POLLUTION BULLETIN* 24(2):92-93.

DIRECTORATE-NAT-MANAGEMENT, TUNGASLETTA 2, N-7005 TRONDHEIM, NORWAY

NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY

**Elgmork-K, Halvorsen-G, Eie-JA, Langeland-A.** 1990. Coexistence with Similar Life-Cycles in 2 Species of Fresh-Water Copepods (Crustacea). *HYDROBIOLOGIA* 208(3):187-199.

UNIV-OSLO, DEPT BIOL, DIV ZOOL, POB 1050, N-0316 OSLO 3, NORWAY

NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY

**Erikstad-KE, Kalas-JA, Byrkjedal-I.** 1989. Resource Partitioning Among 7 Carabid Species on Hardangervidda, Southern-Norway. *ANNALES ZOOLOGICI FENNICI* 26(2):113-120.

UNIV TROMSO, TROMSO MUSEUM, NINA, N-9000 TROMSO, NORWAY

NINA, N-7000 TRONDHEIM, NORWAY

UNIV BERGEN, MUSEUM ZOOL, N-5007 BERGEN, NORWAY

**Erikstad-KE, Vader-W.** 1989. Capelin Selection by Common and Brunnichs Guillemots During the Prelaying Season. *ORNIS SCANDINAVICA* 20(2):151-155.

UNIV TROMSO, TROMSO MUSEUM, DEPT ZOOL, N-9000 TROMSO, NORWAY

UNIV TROMSO, TROMSO MUSEUM, DEPT MARINE, N-9000 TROMSO, NORWAY

**Erikstad-KE.** 1989. The Diel Activity of Carabid Beetles (Coleoptera) North of the Arctic-Circle, with Particular Reference to *Patrobus-Assimilis* Chaud and *Notiophilus-Aquaticus* L. *POLAR BIOLOGY* 9(5):319-323.

UNIV TROMSO, TROMSO MUSEUM, DEPT MARINE BIOL, N-9000 TROMSO, NORWAY

UNIV TROMSO, TROMSO MUSEUM, DEPT ZOOL, N-9000 TROMSO, NORWAY

**Erikstad-KE.** 1990. Winter Diets of 4 Seabird Species in the Barents Sea After a Crash in the Capelin Stock. *POLAR BIOLOGY* 10(8):619-627.

UNIV TROMSO, NORWEGIAN INST NATURE RES, TROMSO MUSEUM, N-9000 TROMSO, NORWAY

**Fleming-IA, Gross-MR.** 1992. Reproductive-Behavior of Hatchery and Wild Coho Salmon (*Oncorhynchus-Kisutch*) - Does It Differ. *AQUACULTURE* 103(2):101-121.

UNIV-TORONTO, DEPT ZOOL, TORONTO M5S-1A1, ONTARIO, CANADA

**Fleming-IA, Hindar-K.** 1992. When Hot Geology Meets Cold Climate on an Island. *TRENDS IN ECOLOGY & EVOLUTION* 7(11):360-361.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7005 TRONDHEIM, NORWAY

**Forseth-T, Jonsson-B, Naeumann-R, Ugedal-O.** 1992. Radioisotope Method for Estimating Food-Consumption by Brown Trout (*Salmo-Trutta*). *CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES* 49(7):1328-1335.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7005 TRONDHEIM, NORWAY  
UNIV-TRONDHEIM, NORWEGIAN INST TECHNOL, INST INORGAN CHEM, N-7034 TRONDHEIM, NORWAY  
FINNMARK-COLL, N-9500 ALTA, NORWAY

**Forseth-T, Ugedal-O, Jonsson-B, Langeland-A, Njastad-O.** 1991. Radiocesium Turnover in Arctic Charr (*Salvelinus-Alpinus*) and Brown Trout (*Salmo-Trutta*) in a Norwegian Lake. *JOURNAL OF APPLIED ECOLOGY* 28(3):1053-1067.

NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY  
UNIV-TRONDHEIM, NORWEGIAN INST TECHNOL, INST INORGAN CHEM, N-7034 TRONDHEIM, NORWAY

**Furness-RW, Barrett-RT.** 1991. Seabirds and Fish Declines. *RESEARCH & EXPLORATION* 7(1):82-95.

UNIV-GLASGOW, DEPT ZOOL, APPL ORNITHOL UNIT, GLASGOW G12-8QQ, SCOTLAND  
NORWEGIAN-INST-NAT-RES, TROMSO MUSEUM, TROMSO, NORWAY

**Gabrielsen-GW, Klaassen-M, Mehlum-F.** 1992. Energetics of Black-Legged Kittiwake *Rissa-Tridactyla* Chicks. *ARDEA* 80(1):29-40.

NORWEGIAN-POLAR-RES-INST, N-1330 OSLO, NORWAY  
DLO, INST FORESTRY & NAT RES, IBN, 6800-HB ARNHEM, NETHERLANDS

**Gabrielsen-GW, Taylor-JRE, Konarzewski-M, Mehlum-F.** 1991. Field and Laboratory Metabolism and Thermoregulation in Dovekies (*Alle-Alle*). *AUK* 108(1):71-78.

NORWEGIAN-POLAR-RES-INST, N-1330 OSLO, NORWAY  
UNIV-WARSAW, INST BIOL, PL-15950 BIALYSTOK, POLAND

**Gausen-D, Moen-V.** 1991. Large-Scale Escapes of Farmed Atlantic Salmon (*Salmo-Salar*) into Norwegian Rivers Threaten Natural-Populations. *CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES* 48(3):426-428.

DIRECTORATE-NAT-MANAGEMENT, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY

**Gjershaug-JO, Roskaft-E, Jarvi-T.** 1989. Marriage Entrapment by Solitary Mothers - A Study on Male Deception by Female Pied Flycatchers. *AMERICAN NATURALIST* 133(2):273-276.

DIRECTORATE NAT MANAGEMENT, N-7004 TRONDHEIM, NORWAY  
UNIV TRONDHEIM, DEPT ZOOL, N-7055 DRAGVOLL, NORWAY

**Goede-AA, Debruin-M, Steinnes-E, Nygard-T.** 1989. Selenium, Mercury, Arsenic and Cadmium in the Lifecycle of the Dunlin, *Calidris-Alpina*, a Migrant Wader. *SCIENCE OF THE TOTAL ENVIRONMENT* 78(JAN):205-218.

DELFT TECH UNIV, INST INTERFAC REACTOR, MEKELWEG 15, 2629 DELFT, NETHERLANDS  
DN, VILTFORSKNINGEN, N-7004 TRONDHEIM, NORWAY  
UNIV TRONDHEIM, DEPT CHEM, N-7055 DRAGVOLL, NORWAY

**Hammitt-WE, Kaltenborn-BP, Vistad-OI, Emmelin-L, Teigland-J.** 1992. Common Access Tradition and Wilderness Management in Norway - A Paradox for Managers. *ENVIRONMENTAL MANAGEMENT* 16(2):149-156.

CLEMSON-UNIV, DEPT PK RECREAT & TOURISM MANAGEMENT, CLEMSON, SC 29634, USA  
NORWEGIAN-INST-NAT-RES, LILLEHAMMER, NORWAY  
NORDIC-INST-URBAN-&-REG-PLANNING, STOCKHOLM, SWEDEN

**Hansen-LP, Jonsson-B, Thorpe-JE, Morgan-RIG.** 1989. Influence of Parr Maturity on Emigration of Smolting Atlantic Salmon (*Salmo-Salar*). *CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES* 46(3):410-415.

NORWEGIAN INST NAT RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
DEPT AGR & FISHERIES SCOTLAND, FRESHWATER FISHERIES LAB, PITLOCHRY PH16 5LB, SCOTLAND

**Hansen-LP, Jonsson-B.** 1989. Salmon Ranching Experiments in the River Imsa - Effect of Timing of Atlantic Salmon (*Salmo-Salar*) Smolt Migration on Survival to Adults. *AQUACULTURE* 82(1-4):367-373.

NORWEGIAN INST NAT RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Hansen-LP, Jonsson-B.** 1991. Evidence of a Genetic Component in the Seasonal Return Pattern of Atlantic Salmon, *Salmo-Salar* L. JOURNAL OF FISH BIOLOGY 38(2):251-258.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Hansen-LP, Jonsson-B.** 1991. The Effect of Timing of Atlantic Salmon Smolt and Post-Smolt Release on the Distribution of Adult Return. AQUACULTURE 98(1-3):61-67.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Hansen-LP.** 1991. Special Issue - Interactions Between Cultured and Wild Atlantic Salmon - Introduction. AQUACULTURE 98(1-3):R9-R10.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Hanssen-I, Pedersen-HC, Lundh-T.** 1991. Does Intense Herbivory from Microtine Rodents Induce Production of Plant Estrogens in the Spring Food Plants of Willow Ptarmigan *Lagopus-l-Lagopus*. OIKOS 62(1):77-79.

UNIV-HOSP-TRONDHEIM, DEPT LAB ANIM, N-7006 TRONDHEIM, NORWAY  
UNIV-TRONDHEIM, DEPT ZOOL, N-7055 DRAGVOLL, NORWAY  
SWEDISH-UNIV-AGR-SCI, DEPT ANIM NUTR & MANAGEMENT, S-75007 UPPSALA, SWEDEN

**Heggberget-TG, Hvidsten-NA, Gunnerod-TB, Mokkelgjerd-PI.** 1991. Distribution of Adult Recaptures from Hatchery-Reared Atlantic Salmon (*Salmo-Salar*) Smolts Released in and Offshore of the River Surna, Western Norway. AQUACULTURE 98(1-3):89-96.

NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY

**Heggberget-TM.** 1991. Establishment of Breeding Populations and Population Development in the Canada Goose *Branta-Canadensis* in Norway. ARDEA 79(2):364-370.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Hesthagen-T, Berger-HM, Larsen-BM, Nost-T.** 1992. Abundance and Population-Structure of Perch (*Perca-Fluviatilis* L) in Some Acidic Norwegian Lakes. ENVIRONMENTAL POLLUTION 78(1-3):97-101.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7005 TRONDHEIM, NORWAY

**Hesthagen-T.** 1990. Home Range of Juvenile Atlantic Salmon, *Salmo-Salar*, and Brown Trout, *Salmo-Trutta*, in a Norwegian Stream. FRESHWATER BIOLOGY 24(1):63-67.

NORWEGIAN INST NAT RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Hindar-K, Jonsson-B, Ryman-N, Stahl-G.** 1991. Genetic-Relationships Among Landlocked, Resident, and Anadromous Brown Trout, *Salmo-Trutta* L. HEREDITY 66(FEB):83-91.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
UNIV-STOCKHOLM, DEPT GENET, S-10691 STOCKHOLM, SWEDEN

**Hindar-K, Nordland-J.** 1989. A Female Atlantic Salmon, *Salmo-Salar* L Maturing Sexually in the Parr Stage. JOURNAL OF FISH BIOLOGY 35(3):461-463.

NORWEGIAN INST NAT RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
ROGALAND CTY ENVIRONM ADM, N-4001 STAVANGER, NORWAY

**Hindar-K, Ryman-N, Utter-F.** 1991. Genetic-Effects of Aquaculture on Natural Fish Populations. AQUACULTURE 98(1-3):259-261.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
NATL-MARINE-FISHERIES-SERV, NW FISHERIES CTR, SEATTLE, WA 98112, USA

**Hindar-K, Ryman-N, Utter-F.** 1991. Genetic-Effects of Cultured Fish on Natural Fish Populations. CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES 48(5):945-957.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
UNIV-STOCKHOLM, DEPT GENET, S-10691 STOCKHOLM, SWEDEN  
NATL-MARINE-FISHERIES-SERV, NW FISHERIES CTR, SEATTLE, WA 98112, USA

**Hoglund-J, Kalas-JA, Fiske-P.** 1992. The Costs of Secondary Sexual Characters in the Lekking Great Snipe (*Gallinago-Media*). BEHAVIORAL ECOLOGY AND SOCIOBIOLOGY 30(5):309-315.

UNIV-UPPSALA, DEPT ZOOL, BOX 56, S-75122 UPPSALA, SWEDEN  
NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY  
UNIV-TRONDHEIM, DEPT ZOOL, N-7055 DRAGVOLL, NORWAY

**Hoglund-J, Kalas-JA, Lofalldi-L.** 1990. Sexual Dimorphism in the Lekking Great Snipe. *ORNIS SCANDINAVICA* 21(1):1-6.

UNIV UPPSALA, POB 561, S-75122 UPPSALA, SWEDEN  
NORWEGIAN INST NAT RES, N-7004 TRONDHEIM, NORWAY  
DIRECTORATE NAT MANAGEMENT, N-7004 TRONDHEIM, NORWAY

**Hoiland-K, Laane-MM.** 1989. Flower Substances in the Extremely Disjunct Species *Oxytropis-Deflexa* and Their Phytogeographical Implications. *CANADIAN JOURNAL OF BOTANY-JOURNAL CANADIEN DE BOTANIQUE* 67(1):218-224.

AGR UNIV NORWAY, POB 64, N-1432 AS, NORWAY  
UNIV OSLO, DEPT BOT, INST BIOL, N-0316 OSLO 3, NORWAY

**Hoiland-K, Watling-R.** 1990. Some *Cortinarius* Spp (Agaricales) of the Cooloola Sand-Mass, Queensland, Australia. *PLANT SYSTEMATICS AND EVOLUTION* 171(1-4):135-146.

NORWEGIAN INST NATURE RES, POB 1037, N-0325 OSLO 3, NORWAY  
ROYAL BOT GARDENS, EDINBURGH EH3 5LR, SCOTLAND

**Hoiland-K.** 1990. The Genus *Gymnopilus* in Norway. *MYCOTAXON* 39(OCT-):257-279.

NORWEGIAN INST NAT RES, POB 1037, N-0315 OSLO 3, NORWAY

**Jarvi-T.** 1989. Synergistic Effect on Mortality in Atlantic Salmon, *Salmo-Salar*, Smolt Caused by Osmotic-Stress and Presence of Predators. *ENVIRONMENTAL BIOLOGY OF FISHES* 26(2):149-152.

NORWEGIAN INST NAT RES, FRESHWATER FISH RES STN, IMS, N-4300 SANDNES, NORWAY

**Jarvi-T.** 1990. Cumulative Acute Physiological Stress in Atlantic Salmon Smolts - The Effect of Osmotic Imbalance and the Presence of Predators. *AQUACULTURE* 89(3-4):337-350.

NORWEGIAN INST NAT RES, RES STN FRESHWATER FISH, N-4300 SANDNES, NORWAY

**Jarvi-T.** 1990. The Effects of Male-Dominance, Secondary Sexual Characteristics and Female Mate Choice on the Mating Success of Male Atlantic Salmon *Salmo-Salar*. *ETHOLOGY* 84(2):123-132.

NORWEGIAN INST NAT RES, IMS, NORWAY

**Jensen-AJ, Johnsen-BO, Heggberget-TG.** 1991. Initial Feeding Time of Atlantic Salmon, *Salmo-Salar*, Alevins Compared to River Flow and Water Temperature in Norwegian Streams. *ENVIRONMENTAL BIOLOGY OF FISHES* 30(4):379-385.

NORWEGIAN-INST-NAT-RES, TUNGASLETTO 2, N-7004 TRONDHEIM, NORWAY

**Jensen-AJ, Johnsen-BO, Saksgard-L.** 1989. Temperature Requirements in Atlantic Salmon (*Salmo-Salar*), Brown Trout (*Salmo-Trutta*), and Arctic Char (*Salvelinus-Alpinus*) from Hatching to Initial Feeding Compared with Geographic-Distribution. *CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES* 46(5):786-789.

NORWEGIAN INST NAT RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Jensen-AJ, Johnsen-BO.** 1992. Site Specificity of *Gyrodactylus-Salaris* Malmberg, 1957 (Monogenea) on Atlantic Salmon (*Salmo-Salar* L) in the River Lakselva, Northern Norway. *CANADIAN JOURNAL OF ZOOLOGY-REVUE CANADIENNE DE ZOOLOGIE* 70(2):264-267.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Jensen-AJ.** 1990. Growth of Young Migratory Brown Trout *Salmo-Trutta* Correlated with Water Temperature in Norwegian Rivers. *JOURNAL OF ANIMAL ECOLOGY* 59(2):603-614.

NORWEGIAN INST NAT RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Johnsen-BO, Jensen-AJ.** 1991. The *Gyrodactylus* Story in Norway. *AQUACULTURE* 98(1-3):289-302.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Johnsen-BO, Jensen-AJ.** 1992. Infection of Atlantic Salmon, *Salmo-Salar* L, by *Gyrodactylus-Salaris*, Malmberg 1957, in the River Lakselva, Misvaer in Northern Norway. *JOURNAL OF FISH BIOLOGY* 40(3):433-444.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7005 TRONDHEIM, NORWAY

**Jonsson-B, Jonsson-N, Hansen-LP.** 1990. Does Juvenile Experience Affect Migration and Spawning of Adult Atlantic Salmon. *BEHAVIORAL ECOLOGY AND SOCIOBIOLOGY* 26(4):225-230.

NORWEGIAN INST NAT RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Jonsson-B, Jonsson-N, Hansen-LP.** 1991. Differences in Life-History and Migratory Behavior Between Wild and Hatchery-Reared Atlantic Salmon in Nature. *AQUACULTURE* 98(1-3):69-78.

NINA, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Jonsson-B, Labeelund-JH, Heggberget-TG, Jensen-AJ, Johnsen-BO, Naesje-TF, Sættem-LM.** 1991. Longevity, Body Size, and Growth in Anadromous Brown Trout (*Salmo-Trutta*). *CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES* 48(10):1838-1845.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
UNIV-TRONDHEIM, DEPT ZOOL, N-7055 DRAGVOLL, NORWAY  
SOGN-&-FJORDANE-CTY-DEPT-ENVIRONM, N-5840 HERMANSVERK, NORWAY

**Jonsson-B.** 1989. Life-History and Habitat Use of Norwegian Brown Trout (*Salmo-Trutta*). *FRESHWATER BIOLOGY* 21(1):71-86.

NORWEGIAN INST NAT RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Jonsson-N, Hansen-LP, Jonsson-B.** 1991. Variation in Age, Size and Repeat Spawning of Adult Atlantic Salmon in Relation to River Discharge. *JOURNAL OF ANIMAL ECOLOGY* 60(3):937-947.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Jonsson-N, Jonsson-B, Hansen-LP.** 1990. Partial Segregation in the Timing of Migration of Atlantic Salmon of Different Ages. *ANIMAL BEHAVIOUR* 40(AUG):313-321.

NORWEGIAN INST NAT RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Jonsson-N, Jonsson-B, Hansen-LP.** 1991. Energetic Cost of Spawning in Male and Female Atlantic Salmon (*Salmo-Salar* L). *JOURNAL OF FISH BIOLOGY* 39(5):739-744.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Kalas-JA, Fiske-P, Lofaldli-L.** 1989. Effects of Radio Packages on Great Snipe During Breeding. *JOURNAL OF WILDLIFE MANAGEMENT* 53(4):1155-1158.

NORWEGIAN INST NAT RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
DIRECTORATE NAT MANAGEMENT, N-7004 TRONDHEIM, NORWAY

**Korsmo-H.** 1991. Conserving Coniferous Forest in Norway - A Critical Time for International Environmental Obligations. *AMBIO* 20(6):238-243.

AGR-UNIV-NORWAY, NORWEGIAN INST NAT RES, POB 64, N-1432 AS, NORWAY

**Korsmo-H.** 1991. Problems Related to Conservation of Coniferous Forest in Norway. *ENVIRONMENTAL CONSERVATION* 18(3):255-259.

AGR-UNIV-NORWAY, NORWEGIAN INST NAT RES, URBYGNINGEN, N-1432 AS, NORWAY

**Kvam-T.** 1991. Reproduction in the European Lynx, *Lynx-Lynx*. *ZEITSCHRIFT FUR SAUGETIERKUNDE-INTERNATIONAL JOURNAL OF MAMMALIAN BIOLOGY* 56(3):146-158.

NORWEGIAN-INST-NAT-RES, MAMMALIAN ECOL RES GRP, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Labeelund-JH, Hindar-K.** 1990. Interpopulation Variation in Reproductive Traits of Anadromous Female Brown Trout, *Salmo-Trutta* L. *JOURNAL OF FISH BIOLOGY* 37(5):755-763.

NORWEGIAN INST NAT RES, N-7004 TRONDHEIM, NORWAY

**Labeelund-JH, Jensen-AJ, Johnsen-BO.** 1990. Interpopulation Variation in Male Parr Maturation of Anadromous Brown Trout (*Salmo-Trutta*) in Norway. *CANADIAN JOURNAL OF ZOOLOGY-JOURNAL CANADIEN DE ZOOLOGIE* 68(9):1983-1987.

NORWEGIAN INST NAT RES, N-7004 TRONDHEIM, NORWAY

**Labeelund-JH, Langeland-A, Saegrov-H.** 1992. Piscivory by Brown Trout *Salmo-Trutta* L and Arctic Charr *Salvelinus-Alpinus* (L) in Norwegian Lakes. *JOURNAL OF FISH BIOLOGY* 41(1):91-101.

UNIV-TRONDHEIM, DEPT ZOOL, N-7055 DRAGVOLL, NORWAY  
NORWEGIAN-INST-NAT-RES, N-7005 TRONDHEIM, NORWAY  
UNIV-BERGEN, MUSEUM ZOOL, DEPT ANIM ECOL, N-5007 BERGEN, NORWAY



**Labeelund-JH, Naesje-TF, Saettem-LM, Jonsson-B, Jensen-AJ, Johnsen-BO, Heggberget-TG.** 1989. Latitudinal Variation in Life-History Characteristics of Sea-Run Migrant Brown Trout *Salmo-Trutta*. *JOURNAL OF ANIMAL ECOLOGY* 58(2):525-542.

NORWEGIAN INST NAT RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Labeelund-JH.** 1989. Significance of Mature Male Parr in a Small Population of Atlantic Salmon (*Salmo-Salar*). *CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES* 46(6):928-931.

NORWEGIAN INST NAT RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Langeland-A.** 1990. Biomanipulation Development in Norway. *HYDROBIOLOGIA* 200(AUG):535-540.

NORWEGIAN INST NAT RES, N-7004 TRONDHEIM, NORWAY

**Langeland-A, Abeelund-JH, Jonsson-B, Jonsson-N.** 1991. Resource Partitioning and Niche Shift in Arctic Charr *Salvelinus-Alpinus* and Brown Trout *Salmo-Trutta*. *JOURNAL OF ANIMAL ECOLOGY* 60(3):895-912.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Lonne-OJ, Gabrielsen-GW.** 1992. Summer Diet of Seabirds Feeding in Sea-Ice-Covered Waters Near Svalbard. *POLAR BIOLOGY* 12(8):685-692.

UNIV-TROMSO, NORWEGIAN COLL FISHERY SCI, N-90037 TROMSO, NORWAY  
UNIV-TROMSO, TROMSO MUSEUM, NORWEGIAN INST NAT RES, N-9006 TROMSO, NORWAY

**Lund-RA, Okland-F, Hansen-LP.** 1991. Farmed Atlantic Salmon (*Salmo-Salar*) in Fisheries and Rivers in Norway. *AQUACULTURE* 98(1-3):143-150.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Lydersen-E, Poleo-ABS, Muniz-IP, Salbu-B, Bjornstad-HE.** 1990. The Effects of Naturally-Occurring High and Low-Molecular-Weight Inorganic and Organic-Species on the Yolk-Sack Larvae of Atlantic Salmon (*Salmo-Salar* L) Exposed to Acidic Aluminum-Rich Lake Water. *AQUATIC TOXICOLOGY* 18(4):219-229.

UNIV-OSLO, DIV GEN PHYSIOL, BOX 1051, N-0316 OSLO 3, NORWAY  
ISOTOPE-LAB, AS, NORWAY

**Lydersen-E, Salbu-B, Poleo-ABS, Muniz-IP.** 1990. The Influences of Temperature on Aqueous Aluminum Chemistry. *WATER AIR AND SOIL POLLUTION* 51(3-4):203-215.

ISOTOPE LAB, POB 26, N-1432 AS, NORWAY  
UNIV OSLO, DIV GEN PHYSIOL, 0316 OSLO 3, NORWAY

**Lydersen-E, Salbu-B, Poleo-ABS, Muniz-IP.** 1991. Formation and Dissolution Kinetics of  $Al(OH)_3$  (S) in Synthetic Fresh-Water Solutions. *WATER RESOURCES RESEARCH* 27(3):351-357.

ISOTOPE-LAB, POB 26, N-1432 AS, NORWAY

**Malmquist-HJ, Snorrason-SS, Skulason-S, Jonsson-B, Sandlund-OT, Jonasson-PM.** 1992. Diet Differentiation in Polymorphic Arctic Charr in Thingvallavatn, Iceland. *JOURNAL OF ANIMAL ECOLOGY* 61(1):21-35.

UNIV-ICELAND, INST BIOL, GRENSASVEGUR 12, IS-108 REYKJAVIK, ICELAND  
UNIV-COPENHAGEN, FRESHWATER BIOL LAB, DK-3400 COPENHAGEN, DENMARK  
NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY

**Moen-V, Langeland-A.** 1989. Diurnal Vertical and Seasonal Horizontal Distribution Patterns of *Mysis-Relicta* in a Large Norwegian Lake. *JOURNAL OF PLANKTON RESEARCH* 11(4):729-745.

NORWEGIAN INST NATURE RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Moksnes-A, Roskaft-E, Braa-AT, Korsnes-L, Lampe-HM, Pedersen-HC.** 1991. Behavioral-Responses of Potential Hosts Towards Artificial Cuckoo Eggs and Dummies. *BEHAVIOUR* 116(FEB):64-89.

UNIV-TRONDHEIM, DEPT ZOO, N-7055 DRAGVOLL, NORWAY  
NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY

**Mork-J, Hansen-LP, Jarvi-T.** 1989. Lower Prevalence of Fin Erosion in Mature Than in Immature Atlantic Salmon (*Salmo-Salar*) Parr. *AQUACULTURE* 80(3-4):223-229.

BIOL STN, BYNESVEIEN 46, N-7018 TRONDHEIM, NORWAY  
NORWEGIAN INST NAT RES, DIV FISH RES, N-7004 TRONDHEIM, NORWAY

**Moum-T, Erikstad-KE, Bjorklid-E.** 1991. Restriction Fragment Analysis of Mitochondrial-DNA in Common Murres, *Uria-Aalge*, from 4 Norwegian Seabird Colonies. *CANADIAN JOURNAL OF ZOOLOGY-JOURNAL CANADIEN DE ZOOLOGIE* 69(6):1577-1584.

UNIV-TROMSO, TROMSO MUSEUM, DEPT MARINE BIOL, N-9000 TROMSO, NORWAY  
UNIV-TROMSO, TROMSO MUSEUM, NORWEGIAN INST NAT RES, N-9000 TROMSO, NORWAY  
UNIV-TROMSO, INST MED BIOL, DEPT BIOCHEM, N-9000 TROMSO, NORWAY

**Muniz-IP.** 1990. Fresh-Water Acidification - Its Effects on Species and Communities of Fresh-Water Microbes, Plants and Animals. *PROCEEDINGS OF THE ROYAL SOCIETY OF EDINBURGH SECTION B-BIOLOGICAL SCIENCES* 97,:227-254.

UNIV-OSLO, NORWEGIAN INST NAT RES, POB 1037, BLINDERN, N-0315 OSLO 3, NORWAY

**Mwalyosi-RBB.** 1990. Resource Potentials of the Rufiji River Basin, Tanzania. *AMBIO* 19(1):16-20.

NORWEGIAN INST NAT RES, BOKS 64, N-1432 AS, NORWAY

**Mwalyosi-RBB.** 1991. Ecological Evaluation for Wildlife Corridors and Buffer Zones for Lake Manyara National-Park, Tanzania, and Its Immediate Environment. *BIOLOGICAL CONSERVATION* 57(2):171-186.

AGR-UNIV-NORWAY, NORWEGIAN INST NAT RES, N-1432 AS, NORWAY

**Mwalyosi-RBB.** 1992. Influence of Livestock Grazing on Range Condition in South-West Masailand, Northern Tanzania. *JOURNAL OF APPLIED ECOLOGY* 29(3):581-588.

AGR-UNIV-NORWAY, NORWEGIAN INST NAT RES, N-1432 AS, NORWAY

**Myrberget-S.** 1989. Repeatability of Clutch Size in Willow Grouse *Lagopus-Lagopus*. *ORNIS SCANDINAVICA* 20(1):74-76.

NORWEGIAN INST NAT RES, WILDLIFE RES DIV, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Naesje-TF, Jonsson-B, Sandlund-OT, Kjellberg-G.** 1991. Habitat Switch and Niche Overlap in Coregonid Fishes - Effects of Zooplankton Abundance. *CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES* 48(12):2307-2315.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
NORWEGIAN-INST-WATER-RES, REG OFF OSTLANDET, N-2312 OTTESTAD, NORWAY

**Odland-A.** 1991. A Synecological Investigation of *Athyrium-Distentifolium*-Dominated Stands in Western Norway. *NORDIC JOURNAL OF BOTANY* 11(6):651-673.

UNIV-BERGEN, INST BOT, N-5007 BERGEN, NORWAY

**Odland-A.** 1991. On the Ecology of *Thelypteris Limbosperma* - A Synecological Investigation of *T Limbosperma*-Dominated Stands in W Norway. *NORDIC JOURNAL OF BOTANY* 10(6):637-659.

UNIV-BERGEN, INST BOT INST, N-5007 BERGEN, NORWAY

**Odland-A.** 1992. A Synecological Investigation of *Matteuccia-Struthiopteris* - Dominated Stands in Western Norway. *VEGETATIO* 102(1):69-95.

UNIV-BERGEN, INST BOT, NINA, ALLEGT 41, N-5007 BERGEN, NORWAY

**Odland-A, Birks-HJB, Line-JM.** 1990. Quantitative Vegetation-Environment Relationships in West Norwegian Tall-Fern Vegetation. *NORDIC JOURNAL OF BOTANY* 10(5):511-533.

UNIV-BERGEN, NINA, INST BOT, N-5007 BERGEN, NORWAY  
UNIV-CAMBRIDGE, COMP LAB, CAMBRIDGE CB2-3QG, ENGLAND

**Ofaldli-L, Kalas-JA, Fiske-P.** 1992. Habitat Selection and Diet of Great Snipe *Gallinago-Media* During Breeding. *IBIS* 134(1):35-43.

NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY  
UNIV-TRONDHEIM, DEPT ZOOL, N-7055 DRAGVOLL, NORWAY  
DIRECTORATE-NAT-MANAGEMENT, N-7004 TRONDHEIM, NORWAY

**Pedersen-HC.** 1989. Effects of Exogenous Prolactin on Parental Behavior in Free-Living Female Willow Ptarmigan *Lagopus-L-Lagopus*. *ANIMAL BEHAVIOUR* 38(DEC):926-934.

UNIV TRONDHEIM, DEPT ZOOL, N-7055 DRAGVOLL, NORWAY

**Poleo-ABS, Lydersen-E, Muniz-IP.** 1991. The Influence of Temperature on Aqueous Aluminum Chemistry and Survival of Atlantic Salmon (*Salmo-Salar* L) Fingerlings. *AQUATIC TOXICOLOGY* 21(3-4):267-278.

UNIV-OSLO, DIV GEN PHYSIOL, POB 1051, N-0316 OSLO 3, NORWAY  
NORWEGIAN-INST-WATER-RES, OSLO, NORWAY  
UNIV-OSLO, NORWEGIAN INST NAT RES, OSLO 3, NORWAY

**Reinertsen-H, Jensen-A, Koksvik-JI, Langeland-A, Olsen-Y.** 1990. Effects of Fish Removal on the Limnetic Ecosystem of a Eutrophic Lake. *CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES* 47(1):166-173.

SINTEF, DIV APPL CHEM, AQUACULTURE GRP, N-7034 TRONDHEIM, NORWAY  
INST MARINE BIOCHEM, N-7034 TRONDHEIM, NORWAY  
UNIV TRONDHEIM MUSEUM, N-7000 TRONDHEIM, NORWAY  
DIRECTORATE NAT MANAGEMENT, DIV FISH RES, N-7000 TRONDHEIM, NORWAY

**Saether-BE, Andersen-R.** 1990. Resource Limitation in a Generalist Herbivore, the Moose *Alces-Alces* - Ecological Constraints on Behavioral Decisions. *CANADIAN JOURNAL OF ZOOLOGY-JOURNAL CANADIEN DE ZOOLOGIE* 68(5):993-999.

NORWEGIAN INST NAT RES, MAMMALIAN ECOL RES GRP, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Saether-BE, Jonsson-B.** 1991. Conservation Biology Faces Reality. *TRENDS IN ECOLOGY & EVOLUTION* 6(2):37-38.

UNIV-TRONDHEIM, INST ZOOL, N-7055 DRAGVOLL, NORWAY

**Saether-BE.** 1989. Survival Rates in Relation to Body-Weight in European Birds. *ORNIS SCANDINAVICA* 20(1):13-21.

NORWEGIAN INST NAT RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Sandlund-OT, Gunnarsson-K, Jonasson-PM, Jonsson-B, Lindem-T, Magnusson-KP, Malmquist-HJ, Sigurjonsdottir-H, Skulason-S, Snorrason-SS.** 1992. The Arctic Charr *Salvelinus-Alpinus* in Thingvallavatn. *OIKOS* 64(1-2):305-351.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
INST-MARINE-RES, IS-105 REYKJAVIK, ICELAND  
UNIV-ICELAND, INST BIOL, IS-108 REYKJAVIK, ICELAND  
ICELANDIC-INST-TEACHER-EDUC, IS-105 REYKJAVIK, ICELAND  
FRESHWATER-BIOL-LAB, DK-3400 HILLEROD, DENMARK  
UNIV-OSLO, INST PHYS, N-0316 OSLO 3, NORWAY

**Sandlund-OT, Jonasson-PM, Jonsson-B, Malmquist-HJ, Skulason-S, Snorrason-SS.** 1992. Threespine Stickleback *Gasterosteus Aculeatus* in Thingvallavatn - Habitat and Food in a Lake Dominated by Arctic Charr *Salvelinus Alpinus*. *OIKOS* 64(1-2):365-370.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7005 TRONDHEIM, NORWAY  
FRESHWATER-BIOL-LAB, DK-3400 HILLEROD, DENMARK  
UNIV-ICELAND, INST BIOL, IS-108 REYKJAVIK, ICELAND

**Sandlund-OT, Jonsson-B, Naesje-TF, Aass-P.** 1991. Year-Class Fluctuations in Vendace, *Coregonus-Albula* (Linnaeus) - Whos Got the Upper Hand in Intraspecific Competition. *JOURNAL OF FISH BIOLOGY* 38(6):873-885.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
ZOOLOG-MUSEUM, N-0562 OSLO 5, NORWAY

**Sandlund-OT, Naesje-TF, Jonsson-B.** 1992. Ontogenic Changes in Habitat Use by Whitefish, *Coregonus-Lavaretus*. *ENVIRONMENTAL BIOLOGY OF FISHES* 33(4):341-349.

NORWEGIAN-INST-NAT-RES, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Sigholt-T, Lofthus-R, Jarvi-T.** 1989. The Effect of Constant 12-Hour Light and Simulated Natural Light on Growth, Cardiac Somatic Index and Smolting in the Atlantic Salmon (*Salmo-Salar*). *AQUACULTURE* 82(1-4):127-136.

UNIV TRONDHEIM, DEPT ZOOL, N-7055 TRONDHEIM, NORWAY

**Skogland-T.** 1989. Natural-Selection of Wild Reindeer Life-History Traits by Food Limitation and Predation. *OIKOS* 55(1):101-110.

DIRECTORATE NAT MANAGEMENT, DIV RES, TUNGASLETTA 2, N-7047 TRONDHEIM, NORWAY

**Skogland-T.** 1990. Density Dependence in a Fluctuating Wild Reindeer Herd - Maternal vs Offspring Effects. *OECOLOGIA* 84(4):442-450.

NORWEGIAN INST NAT RES, LARGE MAMMAL UNIT, TUNGASLETTA 2, N-7047 TRONDHEIM, NORWAY

**Skogland-T.** 1991. What Are the Effects of Predators on Large Ungulate Populations. *OIKOS* 61(3):401-411.

NORWEGIAN-INST-NAT-RES, LARGE MAMMAL RES UNIT, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY

**Snorrason-SS, Jonasson-PM, Jonsson-B, Lindem-T, Malmquist-HJ, Sandlund-OT, Skulason-S.** 1992. Population-Dynamics of the Planktivorous Arctic Charr *Salvelinus-Alpinus* (Murta) in Thingvallavatn. *OIKOS* 64(1-2):352-364.

UNIV-ICELAND, INST BIOL, GRENSASVEGUR 12, IS-108 REYKJAVIK, ICELAND  
NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY  
FRESHW-BIOL-LAB, DK-3400 HILLEROD, DENMARK  
UNIV-OSLO, INST PHYS, N-0316 OSLO 3, NORWAY

**Snorrason-SS, Sandlund-OT, Jonsson-B.** 1992. Production of Fish Stocks in Thingvallavatn, Iceland. *OIKOS* 64(1-2):371-380.

UNIV-ICELAND, INST BIOL, GRENSASVEGUR 12, IS-108 REYKJAVIK, ICELAND  
NORWEGIAN-INST-NAT-RES, N-7005 TRONDHEIM, NORWAY

**Steen-JB, Erikstad-KE, Hoidal-K.** 1992. Cryptic Behavior in Molting Hen Willow Ptarmigan *Lagopus-Lagopus-Lagopus* During Snow Melt. *ORNIS SCANDINAVICA* 23(1):101-104.

UNIV-OSLO, DIV GEN PHYSIOL, POB 1051, N-0316 OSLO 3, NORWAY  
UNIV-TROMSO, TROMSO MUSEUM, NORWEGIAN INST NAT RES, N-9000 TROMSO, NORWAY  
UNIV-BERGEN, ZOOL MUSEUM, DEPT ANIM ECOL, N-5000 BERGEN, NORWAY

**Strann-KB, Vader-W.** 1992. The Nominate Lesser Black-Backed Gull *Larus-Fuscus-Fuscus*, a Gull with a Tern-Like Feeding Biology, and Its Recent Decrease in Northern Norway. *ARDEA* 80(1):133-142.

UNIV-TROMSO, TROMSO MUSEUM, NORWEGIAN INST NAT RES, N-9000 TROMSO, NORWAY  
UNIV-TROMSO, TROMSO MUSEUM, DEPT ZOOL, N-9000 TROMSO, NORWAY

**Summers-RW, Strann-KB, Rae-R, Heggas-J.** 1990. Wintering Purple Sandpipers *Calidris-Maritima* in Troms County, Northern Norway. *ORNIS SCANDINAVICA* 21(4):248-254.

NINA, TROMSO MUSEUM, N-9000 TROMSO, NORWAY

**Svalastog-D.** 1991. A Note on Maximum Age of Brown Trout, *Salmo-Trutta* L. *JOURNAL OF FISH BIOLOGY* 38(6):967-968.

AGR-UNIV-NORWAY, NORWEGIAN INST NAT RES, BOX 64, N-1432 AS, NORWAY

**Ugedal-O, Jonsson-B, Njastad-O, Naeumann-R.** 1992. Effects of Temperature and Body Size on Radiocesium Retention in Brown Trout, *Salmo-Trutta*. *FRESHWATER BIOLOGY* 28(2):165-171.

NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY  
UNIV-TRONDHEIM, NORWEGIAN INST TECHNOL, INST INORGAN CHEM, N-7034 TRONDHEIM, NORWAY

**Vivas-HJ, Saether-BE, Andersen-R.** 1991. Optimal Twig-Size Selection of a Generalist Herbivore, the Moose *Alces-Alces* - Implications for Plant Herbivore Interactions. *JOURNAL OF ANIMAL ECOLOGY* 60(2):395-408.

NORWEGIAN-INST-NAT-RES, MAMMALIAN ECOL RES GRP, TUNGASLETTA 2, N-7004 TRONDHEIM, NORWAY  
UNIV-TRONDHEIM, AVH, DEPT MATH & STAT, N-7055 DRAGVOLL, NORWAY

**Vuorinen-J, Naesje-TF, Sandlund-OT.** 1991. Genetic Changes in a Vendace *Coregonus-Albula* (L) Population, 92 Years After Introduction. *JOURNAL OF FISH BIOLOGY* 39(SA):193-201.

UNIV-JOENSUU, DEPT BIOL, POB 111, SF-80101 JOENSUU, FINLAND  
NORWEGIAN-INST-NAT-RES, N-7004 TRONDHEIM, NORWAY

**Warner-WS, Fry-G.** 1990. Evaluating Small-Format Photogrammetry for Forest and Wildlife Surveys - Euclidean vs Fractal Geometry. *FOREST ECOLOGY AND MANAGEMENT* 31(1-2):101-108.

NORWEGIAN INST GEORESOURCES & POLLUT RES, POSTBOX 9, N-1432 AS, NORWAY

**Wiig-O, Ekker-M, Ekker-T, Rov-N.** 1990. Trend in the Pup Production of Gray Seals *Halichoerus Grypus* At Froan, Norway, from 1974 to 1987. *HOLARCTIC ECOLOGY* 13(2):173-175.

INST MARINE RES, BERGEN, NORWAY  
NORWEGIAN POLAR RES INST, N-1330 OSLO, NORWAY  
UNIV TRONDHEIM, DEPT ZOOL, N-7055 DRAGVOLL, NORWAY  
NORWEGIAN INST NAT RES, N-7002 TRONDHEIM, NORWAY  
FYLKESHUSET, FYLKESMANNEN SOR TRONDELAG, N-7000 TRONDHEIM, NORWAY

**Youngson-AF, Hansen-LP, Jonsson-B, Naesje-TF.** 1989. Effects of Exogenous Thyroxine or Prior Exposure to Raised Water-Flow on the Downstream Movement of Hatchery-Reared Atlantic Salmon Smolts. *JOURNAL OF FISH BIOLOGY* 34(5):791-797.

DEPT AGR & FISHERIES SCOTLAND, MARINE LAB, VICTORIA RD, ABERDEEN, SCOTLAND  
DIRECTORATE NATURE MANAGEMENT, DIV FISH RES, TRONDHEIM, NORWAY