Rangifer, Special Issue No. 3, Proceedings of the Fifth International Reindeer/Caribou Symposium, Arvidsjaur, Sweden, 1988.

Request for error information:

You have all observed that the issue of the Proceedings was very much delayed. The delay is mainly due to unqualified typing from the printer which we were forced to use by provision of one of the foundations covering the costs of printing. The editors are sorry for this.

Regretably, in spite of endless proof-reading, there still seems to be some errors in the volume. We therefore urge authors to, as soon as possible, inform the editor of Rangifer about important errors affecting the presentation of scientific results in their papers, so that we, at the soonest, are able to distribute a list of corrections.

Please respond to Rangifer's address.

## REINREF

The datafile for literature about reindeer, caribou and reindeer husbandry.

The compiling of literature references is going on continually. By now, appr. 3000 references are registered in REINREF.

The file is open for service in two ways:

- 1. By request to the library indicating the field of interest or giving key words or descriptors, preferably from the REINREF Key-word Index (Thesaurus).
- 2. Through own data-equipment (see Search guide in this issue of Rangifer).

Address of the library:

Swedish University of Agricultural Sciences Forestry Library S-901 83 Umeå Sweden

Telephone: 46 (0)90 165802 Telefax: 46 (0)90 165925

Prices:

Search by own data-equipment .... SEK 5,-/min.

Your personal code to LUKAS is available at:

Swedish University of Agricultural Sciences Ultuna Library Box 7071 S-750 07 Uppsala Sweden

Telephone: 46 (0)18 672210 Telefax: 46 (0)18 301006

# Search guide for REINREF

15 November, 1990

## Access

For communication a TTY- or VT100-terminal, or a PC with software emulating a TTY- or VT100-terminal could be used.

Acess via DATEL

Speed (b/s) Telephone numbers

300 (0)18-301980, (0)18-555320, (0)8-151710 75/1200 (0)18-301980, (0)18-555320, (0)8-151710 1200 (0)18-149460, (0)18-156840, (0)18-139045, (0)8-151630 2400 (0)18-149460, (0)18-156840

Access via DATAPAK NUA: 240371910308

Access via SUNET NUA: 240371910308

Access via SUNET - TCP/IP Node: UDAC1.UDAC.UU.SE

Communication parameters

Full duplex
Even parity
7 data bits
1 stop bit
Swedish ASCII

When connection has been established, press the return key < CR > .

System: Upnod 303 . . .

Enter address (type ? for help)

Type: 1r < CR >

System: Upnod 303 . . . Om ej (= if not) «att»

- Tryck på (= press) ESC. Connected to SLU-DAC-B.RURIK . . .

System: att

(Press escape key if neccessary to get «att» from system)

Type: lukas < CR >

System: Välkommen till (= Welcome to) LU-KAS . . .

>

Type: <user-id> <password> (e.g. abc 123)

System: Inga brev bas 0>

Type: bas 3 < CR >

System: >

Type: nr = ren < CR >

System: Resultatet av sökning nr. 1 är (= Result of search No. 1 is) xxxx referens(er)

Type: bas b < CR >

# Ready for searching

For English replies from system, type: define English.

For HELP: type the command help

If no field label is given the search will be performed in the title and descriptor fields (descriptor = controlled term = key word).

Field Field Example label Title reindeer Title ti=reindeer or reindeer/ti ti Descriptor physiology äo=physiology or äo physiology/äo **1**f If = andersson p\$ Author (Use only initials for first name.)

Corporate

name in in=university

Publication

year ar = 1984

år = 1984 eller år = 1985 eller

ar = 1986

år=(1984, 1985, 1986) (the interval 1984–1986)

# Please note:

Use lower-case letters except for the words mentioned under the heading «reserved words» below.

Since «/» and «=» are used with field labels they cannot be used in search strings. Use spaces instead.

For å use aa, a or å Try all possible spelling alternaties!

For ä use ae, a or ä For ö, ø use oe, o or ö For ü use ue, u or ü

# Displaying terms

It you want to check search terms you can look them up in the index using the command *lista* or *list* and the appropriate field label.

Example: lista lf=andersson list äo=physiology

A list of words is shown. Every line has a number. This number could be used for retrieval.

Example: d1 67 Andersson, A. d2 1 Andersson, A. C.

Typing the display number «d2» is equivalent to entering the command lf=andersson a c.

## Reserved words

If you want to search for a word which also has a special function in the search dialogue, you have to use at least one upper-case letter in that word.

Such reserved words can be commands, operators and field labels: visa, show, lista, list, start, stopp, stop, hjälp, help, hist, ut, bestäm, define, och, and, eller, or, inte, not, mod, mode, bas, base, in, år etc.

For example, if you want to search for the string legislation in Finland you must type legislation iN finland.

## Truncation

Search terms can be right-hand truncated with dollar signs (\$) to cover all possible endings. Words in titles can also be left-hand truncated. In the latter case at least 4 characters must follow the dollar sign and the field label «ti» must be used.

Example: searchterm\$
Example: ti=\$searchterm\$
Example: ti=\$searchterm\$

# Character masking

Characters in search terms may be masked using dollar signs (\$) to allow for alternative spelling:

\$ = 1 character \$\$ = 2 characters

\$\$\$ = any number of characters

Example: If = lund\$\$ist\$ (= lundkvist, lundquist, lundqvist)

# Logical combinations

You may use a search string consisting of several words, e.g. a whole title, or you may combine words using the logical operators och, and, eller, or, inte, not:

Example: reindeer och pastur\$ och sweden reindeer and pastur\$ and sweden lf=åhman g\$ and äo=nutritional physiology

Example: reindeer eller elks

reindeer or elks (gives ref. with either of these words, or both, in the same

record)

Example: pastur\$ inte sweden pastur\$ not sweden

Set numbers can be used instead of search terms in combination with logical operators.

Example: s3 och hydrology (s3 = set 3 = search 3)
s3 and hydrology

# Displaying records

You can display the references of a search by simply pressing the return key. They will be shown one by one starting with ref. no. 1.

If you want to look at a specific record in the current set you must use the command *visa* or *show* and the record number.

Example visa r3 show r3

It is also possible to specify intervals.

Example: visa r3 till 10 show r3 to 10

If you want to look at a record from a search done before the current set you must also specify search number.

Example: visa s5; r3 till 8 show s5; r3 to 8 (gives rec. 3 to 8 in search 5)

If you like you can select another display format.

Example:

visa r8; f3 (gives title, controlled terms) visa r8; f2 (gives title, publication year, edition)

visa r8; f0 (gives complete record, all fields) visa r8 till 200; f=ti (gives title)

# Search history

The command *hist* gives a search history of the last 16 sets.

#### Termination of session

Use the command *ut* to terminate the search session

System: > Type: ut

System: Sökningen avslutad . . .

Press ESCape key

System: att

Type: sos < CR >

System: >

Type: go breaknf < CR > System: sos: breaknf enrolled

## REINREF

# Key-word index (Thesaurus)

## INDEPENDENT DESCRIPTORS

To be used only with descriptors of upper grade.

# Geographical

Alaska
Canada
China
Finland
Greenland
Iceland
Kerguelen
Norway
South Georgia
Svalbard
Sweden
USA
USSR

Hardangervidda

NWT

Seward Peninsula

etc.

# Organs and body parts

Abdominal organs Abomasum Antlers Blood

Digestive organs

Eyes

Female reproductive organs

Heart Joints Kidneys Liver Lungs

Lymphatic system Male reproductive system

Nerves Omasum Ovaries Renal system Respiratory organs

Reticulum Rumen Skeleton Skin Teeth Testes

Thoracic organs Vascular system

## Seasons

Autumn Spring Summer Winter

## Miscellaneous

Age differences Age influence Body weight

Calves

Calving period Carbohydrates Characteristics

Chemical composition

Chemistry

Climatic influence Comparative

Condition influence

Control
Description
Diagnostics
Distribution
Ecology
Economy
Effects
Energy
Epidemiology
Evaluation
Experimental
Excretion

Experiment
Excretion
Fat
Females
Fetus
Field work
General

General description Genetical influence Growth Harvest Identification Males

Males
Management
Metabolism
Methodology
Methods
Milk
Minerals
Modelling

Morphology Mortality Numbers

Nutritional influence

Pathogenesis

Photoperiodic influence

Problems
Productivity
Proteins
Registration
Seasonal changes
Seasonal influence
Sex differences
Sex influence
Snow

Social Statistics Studies Survey Technique Treatment Virulence Weight

## DESCRIPTORS

Descriptors marked with \* are independent descriptors only to be used with descriptors of upper grade.

# General description

Characteristics\*
Distribution\*
Origin\*
Systematics
Taxonomy
Taxonomic indicators
Rangifer tarandus tarandus
etc.

## Anatomy

Abdominal organs\*
Abomasum\*
Adipose tissue
Antlers\*
Blood\*
Brown adipose tissue\*
Cellular structure

Cutaneous glands
Dentition
Digestive organs\*

Endocrine glands\*

Female reproductive system\* Fur

Hair Heart\* Innervation Interdigital

Interdigital glands\*

Joints\* Kidneys\* Liver\* Lungs\*

Lymphatic system\*

Male reproductive organs\*

Mammary glands

Moulting
Nasal cavity
Nerves\*
Omasum\*
Renal system\*
Respiratory organs\*

Reticulum\* Rumen\*

Skeletal muscles Skeleton\* Skin\* Smooth muscles

Teeth\*

Tooth cementum

Testes\*

Thoracic organs\*
Tooth development
Vasculary system\*
Vascularisation

#### Senses

Hearing Sight Smell Taste Touch

# Adaptation

# General physiology

Antlers\*
Antler cycles
Antler shedding
Biochemistry\*
Blood\*

plood.

Blood constituents Blood values Blood volume Body temperature Body water Bones Comparative\*

Comparative\* Condition\*

Electrocardiography

Embryology Endocrinology Endo-secretion Excretion

Extracellular fluid Fluid balance Haematology Haemoglobin

Heart\*
Histochemistry
Hormones
Lactation\*
Metabolism\*

Milk\*

Mineralization

Ossification
Proteolysis
Reproductive physiology
Sex-hormones
Skeletal muscles
Skin\*
Thermoregulation

Vascular physiology

Behaviour

Tracers

Activity patterns Aggression Alarm reactions Antiinsect tactics Antipredator tactics Audio signals Clicking sound Dominance Grouping behaviour Habitat use\* Insect harassment Leadership Maternal influence Migration\* Mother calf relations Parasite defence reactions Range fidelity Reproductive behaviour Rutting\* Sense of direction Sexual behaviour Sexual segregation Social organization Social rank Spacing

Bacterial diseases

Abscesses
Anthrax
Botulism
Brucellosis
Clostridiae
Colibacillosis
Corynebacterium
Culture methods\*
Diagnostics\*
Epizootology
Erysipelas
Necrobacillosis
Paratuberculosis

Pasteurellosis Epidemiology\*

Viral diseases

Bovine respiratory group Contagious echtyma Foot and mouth disease Herpes Influenza Parapox Pox Rabies

Mycosis Absidia Aspergillus Dermatomycosis Diagnostics\* Epidemiology\*

Diagnostics\*

Immunology

Sera Vaccines

Serology

Neonatal diseases

Deformities

Traumatic diseases

Fractures Mandibular lesions Surgery Wounds Diagnostics\*

Toxic diseases

Herbicides Toxic drugs Toxic fertilizers Diagnostics\* **Parasitology** 

Anthelmintics

Antiparasitic treatment

Besnoitia

Cephenomyia trompe

Coccidiosis

Control of warbles

Cysticercosis

Defence behaviour

Diagnostics\*

Dictyocaulus

Echinococcosis

Ecology\*

Elaphostrongylus

Faecal examination

Fasciola

Filariae

Flies

Flukes

Gad fly

Gastrointestinal nematodes

Helminths

Host-parasite relations

Hydatidosis

Hypoderma

Infestation

Infestation rate

Insect harassment\*

Insect repellents

Intermediate hosts

Larvae

Lice

Life cycle

Linguatula

Lung worms

Mosquitos

Nasal bots

Nasal fly

Nematoda

Nematode treatment

Oedemagena tarandi

Oestrid flies

Onchocerca

Parasite ecology

Piroplasmosis

Protozoa

Repellents

Sarcocystiasis

Sarcoptosis

**Tapeworms** 

Ticks

Toxoplasmosis

Treatment\*

Treatment of warbles

Trematoda

Warbles

## Nutritional disorders

Acidosis

Avitaminosis

Bone marrow disorders

Enterotoxaemia

Indigestion

Loss of appetite

Mineral disorders

Overfeeding

Starvation

Treatment\*

**Tympanitis** 

Water deprivation

# Organic diseases

Abdominal organs\*

Dental abnormalitites

Eves\*

Mandibular lesions\*

Nerves\*

Respiratory organs\*

Reticulo-endothelial system

Thoracic organs\*

Tooth wear

Tumors

Urinary system

# Stress

Blood parameters

Capture myopathy

Chasing influence

Confinement stress

Gastric ulcers

General adaptive syndrom

Handling stress

Restraint stress

Stress indicators

Stress symptoms

Transportation stress

Vascular system\*

#### Thermal impact

Freezing

Frostbites

Hyperthermia

Hypothermia

# Organic diseases

Abdominal organs\*
Dental abnormalities
Eyes\*
Mandibular lesions\*
Nerves\*
Respiratory organs\*
Reticulo-endothelial system
Thoracic organs\*
Tooth wear
Tumors
Urinary system
Vascular system\*

# Reproductive diseases

Abortion Infertility Reproductive dysfunctions

#### Zoonoses

Contagious echtyma Echinococcosis Orf Warble fly larvae

#### Disease interactions

Deer Dogs Goats Sheep

## Pharmacology

Anaesthesia Immobilization Tranquillizers

# **Pastures**

Autumn\*
Biomass\*
Bogs
Carrying capasity
Cultivation
Damage of pastures
Evaluation\*
Fertilization
Fires
Geological influences
Grazing effects\*
Image analysis

Improvement of pastures Nature conservation Nutritive value Overgrazing\* Pasturing methods Pasturing patterns Phenology Plant preference\* Productivity\* Range management Registration\* Remote sensing Spring\* Succession\* Summer\* Topography Tundra Winter\*

# Grazing

Autumn\* Cratering Diets Food availability Food habits Food intake Food selection Forage and productivity Forage quality Grazing effect\* Grazing habits Habitat preference Ice\* Licking Overgrazing Pasture preference\* Pasturing methods\* Pasturing patterns\* Seasonal diets Snow\* Spring\* Summer\* Tooth wear\* Winter\*

# Range ecology

Climatic influence\* Fires\* Nature conservation\* Snow\* Soil chemistry Soil microbiology Soil qualities Succession\*

#### Snow

Characteristics\* Cratering\* Snow index Snow influence Snow technology Terminology\*

# Pasture plants

Biomass\* Birch Chemical composition Digestibility Dry matter content Energy content Esophageal fistulation Faecal analysis Fungi Ground lichens Identification\*

Intake Lichens Lichen growth Mineral content Moisture content Nutrient content

**Palatability** Plant communities Plant growth Plant-herbivore interactions

Plant physiology

Plant preference Rumen content

Rumen content analysis

Seasonal Systematics\* Trace elements Tree lichens

# Nutritional physiology

Appetite\* Caecal physiology Carbohydrate physiology Digestion Energy metabolism Energy modelling

Excretion\* Faeces Fasting Fat index Fat physiology Food passage Glucuronidation Glucose metabolism Glucose synthesis Growth regulation Metabolic profiles Metabolism\* Milk production Milk synthesis Mineral physiology Nutritional influence\* Physiological condition criteria Protein physiology Radiobiology Ruminal fistulation Ruminal microbiology Ruminal physiology Rumination Seasonal influence\*

Starvation physiology

Urea

Urea recirculation

Urine

Volatile fatty acids Voluntary food intake

Water flux

Water metabolism

# Nutritional requirements

Activity budget Cratering\* Energy budget Energy expenditure Energy requirements Growth requirements Heart rate Insect harassment\* Lactation requirements Locomotion energy

Milk intake\* Mineral requirements

Modelling\*

Nutritional adaptation

Nutritional effects on condition Nutritional effects on fertility

Seasonal variability\* Survival dynamics Trace elements\*

# Emergency feeding

Digestibility\*
Economy\*
Effects\*
Energy\*
Problems\*
Technique\*
Tree lichens\*
Types of feed\*

# Supplementary feeding

Digestibility\*
Economy\*
Effects\*
Energy\*
Minerals\*
Problems\*
Proteins\*
Technique\*
Types of feed\*

# Feeding in captivity

Economy\*
Problems\*
Technique\*
Types of feed\*

# Reproduction

Abortion\*
Birth
Birth rate
Breeding success
Calving sites
Calving time
Conception
Conception rate
Fertility
Foetus\*

Gestation period Lactation

Maternal effect Maternal investment

Mating

Milk composition
Milk intake\*
Milk production\*
Newborn calf
Nutritional effects\*

Pregnancy

Pregnancy diagnostics

Pregnancy rate

Oestrus

Reproductive strategies

Rutting Sex ratio\*

Sexual condition

Sexual cycle

Sexual hormones

Twins

# Growth and development

Age determination Antler development Body composition Body measurements

Body measurements and weight relationships

Body size
Bone marrow
Density effects
Dentition\*
Fattening
Foetus\*

Growth regulation
Growth rate
Live weight
Mandible length
Nutritional influence\*
Organ weights

Organ weights Physical condition Physical condition criteria Weighing technique

Weight change Weight estimating

# Chemical composition

Blood\* Body Bone tissue Carbohydrates\* Fat\* Kidneys\*

Meat\* Minerals\* Protein\*

#### Reindeer industry

General\* Licenced industry Management systems

**Statistics** 

Alaska\* Canada\* etc.

## Public administration

Legislation\* Regional planning Rights Alaska\* etc.

### Associations

Alaska\* etc.

# Practical husbandry

General\*
Corralling
Draught reindeer
Ear tagging
Falsification of earmarks
Fences
Herding
Housing
Locating systems
Marking
Mechanization
Alaska\*

## Dogs

etc.

Breeding\* Dog diseases Dog training Dog types

## **Economy**

Accidents
Antlers\*
Calf mortality
Financing
General\*
Herd composition
Hides
Losses

Losses Marketing Meat Mortality\* Mortality factors Predation\*

Prices

Production\*

Products

Socioeconomics\*

Supports

Taxes & duties

# Planning

Business planning Business studies Modelling\*

## Predation

General\*
Bears
Eagles
Foxes
Lynxes
Predation control
Predation evaluation
Predator management
Predator registration
Predatory behaviour
Wolverines
Wolves
Alaska\*
etc.

## Breeding

Breeding methods Castration Chromosomes Crossing Enzyme polymorphism Evaluation of individuals Genes Genetic variability Genetics Herd structure Inbreeding Maternal influence Maternal investment Selection Sex ratio\* Transferrins Types of reindeer

# Slaughtering

Animal protection Field slaughtering Meat composition Meat inspection Meat quality\* Preslaughter handling Slaughter houses Slaughter technology Slaughter weight Stunning and killing Transportation

## **Products**

Milk\*

Organs

Tongues

Rut influences

Sex differences

Age differences\*
Antlers\*
Bones\*
Byproducts
Cheese
Hearts
Hides
Kidneys\*
Livers
Meat\*
Meat composition
Meat quality\*

#### Additional business

Agriculture Combination of business Fishing Home crafts Hunting\* Tourist industry

## Education and training

Practical training Technical colleges University studies Textbooks Alaska\* etc.

# Wild reindeer or Caribou

General\*
Barren ground
Census
Coexistence
Density
Distribution
Habitat
Harvest\*

Harvesting strategy

Hunting
Introduction
Management\*
Meat production
Migration\*
Mortality\*
Mountain
Movements
Numbers\*
Poaching
Populations

Population composition Population control Population dynamics Population ecology Population structure Population systemogenesis

Productivity\*
Segregation
Selection

Species identifying

Status Types Utilization Woodland Alaska\* etc.

Nelchina herd\*

etc.

## Environment

Acid precipitation
Air traffic
Chlorinated hydrocarbons
Crossing\*
Effects on man
Fallout
Fertilization
Ground traffic
Heavy metals
Herbicides

Insecticides Iodine Iron-55 **Pipelines** Plutonium Pollution Powerlines Predation Protection Radioactivity Radiocesium Railways Roads Strontium Tourism Transfer mechanisms

# Conflicting interests

Agriculture Domestic reindeer versus wildlife Encroachment on pasture Forestry Goat grazing Human activity Hunting\* Hydroelectric development Land exploitation Legislation\* Pipelines Oil exploration Reindeer impact Settlement Sheep grazing Tourism

# Bilateral relations

Finland & USSR etc.

#### Research

Cooperation Meetings Modelling\* Planning\* Stations

#### Field methods

Aerial survey Blood sampling Catching
Equipment
Location systems
Nutrition studies
Radiotelemetry
Radio tracking
Research impact on animals
Restraining methods
Sampling technology

# Comparative studies

#### Muskox

## Deer

Farming
Identification
Red deer
etc.
Cervus elaphus
etc.

#### Animal welfare

Castration methods Handling methods Herding methods Killing methods Stress\*

#### **Evolution**

Fossils History Origin\* Palaeontology Prehistory

# Exploitation of land

Land management

# Recipes

## Anthropology

Archaeology Characteristics\* Elements Eskimos Indians Nomadism Saami Siberian tribes Socioeconomics\*

## Miscellaneous