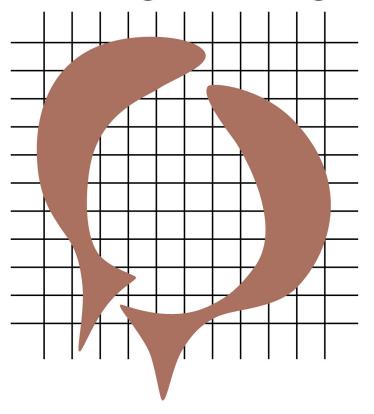
NVG NEWSLETTER

19th year no. 2, December 2010

Nederlandse Vereniging voor

Gedragsbiologie



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NETHERLANDS SOCIETY FOR BEHAVIOURAL BIOLOGY

The Netherlands Society for Behavioural Biology aims at strengthening behavioural biology in the Netherlands and the direct surroundings. We strive for top quality in all of the behavioural sciences with respect to teaching, research, and public debate. The society organizes a yearly meeting and biannual distributes this newsletter.



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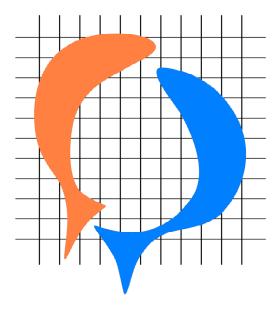
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Editorial Preface

This is the second NVG Newsletter of 2010, the one in which Dalfsen became Soesterberg. We also have an interesting book review, with a lot of promises about its potential impact, and two valuable web alerts. There is also sad news about the passing away of Erwin Geerts, known by many NVG-members from previous Dalfsen-meetings. The thesis defense of this issue is from Dr. Ilse van Opzeeland, Dutch talent working with our German neighbours.

The editor: Hans Slabbekoorn



The 'new Dalfsen'

By: Sara Schaafsma

The annual meeting of the NVG was held from the 24th until the 26th of November 2010. Among me and my colleagues the meeting has always been known as the Dalfsen meeting or just 'Dalfsen'. This year however, it was relocated to Soesterberg. So when people asked where I was going 'Dalfsen in Soesterberg' turned out to be the best way of putting it.

This change in location was primarily made on financial grounds, but change is tricky as people tend to prefer the past over current situations. Namewise not a lot has changed as we moved from one conference centre with a draconic name (Mooirivier) to the other (Kontakt der Kontinenten). But the name is not a trait you will like or dislike a place for. The supposedly beautiful forestry surroundings could make this place superior to Dalfsen, but I have not been outside

the centre for more than two minutes.

The NVG meeting itself was not much affected by the change of location. Most importantly, the talks and posters were still interesting and addressing a broad range of topics. The meeting was opened with the Baerends lecture, this time by Prof. Theo Bakker from the University of Bern. We learned about the mechanisms of kin recognition in fish and the differences between cichlids and sticklebacks. Very charming were the sophisticated life-like stickleback animations used to unravel underlying mechanisms.

The second keynote speaker was Prof. Ofer Tchernichovski from the City College of New York, After a gazelle-like jump onto the weirdly elevated stage he spoke about zebra finches. In order to learn a song which contains syllables in a different order as in its originally learned song, a male finch changes its song step by step in a trial and error kind of way. Most spectacular for me was to learn that a zebra finch grown up in isolation produces a highly erroneous song, but that such isolate birds, exposed only to similar isolate tutors, produce normal song again within two or three generations.

The difference between the old and new venue for the NVG-meeting was in the details. We had to walk to get our peppermints and our water came from design carafes which, I later found out, were part of a public charity organization. As a small tip to the conference centre though, I would advise to fix the rubber parts to these carafes with glue, as they are essential for using

it without spilling most of the water. On the other hand, it was also mildly entertaining to look at people drying their notes after having used a carafe. I guess it is not a good thing for a conference centre to be remembered by.

After a great Indonesian dinner, the free drinks from Noldus were as always much appreciated although the location was not very convenient as a bar. The tops of the benches, originating from the period in which the building was still in use as a monastery, were sloping. Ideal, without a doubt, to read bibles from, but less suited to put down full beer glasses. This did not stop people from enjoying the evening and after closing time, especially the Flemish delegation was in favour of going out in Utrecht. Maybe it will happen next year, because I think the new location of the NVG meeting was a success and I predict we will be back in 2011.

Sarah Schaafsma is PhD-student at Groningen University

Ten top tips

for and from PhD-students, from the NVG-workshop on 24-11-10

By: Michael Briga, Mirre Simons, Mieke Titulaer, and Wouter Halfwerk

The 2010 Meeting of the Netherlands Society for Behavioural Biology started as usual with a PhDworkshop. The aim of these workshops is to provide opportunity to students to discuss their plans and work in progress with fellow students and senior researchers.

One session was devoted to experiences during the progress of a PhD-project. Here, we summarized the discussion into ten points crucial for success.

- 1. Networking: Is important! On conferences make a plan whom to approach and what to ask and say. Do not be afraid to approach "famous" people, even though you will find out, after your approach, that some are arrogant or do not want to listen. Go to conference dinners. It will give you the chance to have professional discussions and you may discover and develop essential social skills.
- 2. **Collaboration**: too many collaborators can slow you down. Choose collaborators carefully. Try to assign a main supervisor per subproject. An important selection criterion should be: motivation. Unfortunately, senior researchers can loose their enthusiasm over the years, but you should be able to avoid these via interacting before connecting. Note that the intentions of collaborators may change over time. Failure or success is often independent of research qualities and is strongly affected by a 'personality match' among collaborators.
- **3. Supervisor**: the relationship with a supervisor requires serious management attention. The interest of a supervisor is not necessarily fully overlapping with yours. You may e.g. have to wait too long for feedback, because your supervisor is working on other priorities. Therefore, think of ways to motivate your supervisor to work for you. Make your project

also his or her project. There are courses given for this.

- 4. Feedback: Collaborators often provide opposite feedback on a manuscript. In these cases you should list the conflicting arguments and make a decision yourself which argument you think is best. You will regularly get different feedback from reviewers and supervisor even regarding straightforward things as statistics. Ask yourself why you get different advice. It is likely to be caused by some ambiguity in your set-up. A clear description of hypotheses and research questions and how your data answers these will help.
- own mind during discussions and when facing criticism. Discuss the critiques, but keep standards of diplomacy. The right timing for counter-arguments is often with some delay. These skills are useful in any professional environment you may end up in.
- **6. Expertise:** Seek the right person, with the right expertise at the right time. Contact people from outside before it is too late. Your supervisor can not know everything and in principle he or she should welcome fresh input.
- 7. Planning: Plan your experiments carefully. Write an introduction, proposal or review, with a detailed time planning, including clearly defined research questions. Make your planning for projects and talks in advance. However, you should also be flexible for changes and improvements. For every task schedule: plan some extra time

because there are always unpleasant surprises.

- **8. Back-up:** Make back-ups of your data as soon as possible on multiple locations and also keep your raw data.
- **9. Reviewing:** Start peer-reviewing papers, or help your supervisor with reviews, as soon as possible in your career.

10. Keep on learning!



More advice can be found at:

http://www.rug.nl/biologie/onderzoek/ onderzoekGroepen/theoreticalBiology/i nfoanddownloads, 1) A Moderate Advice for Graduate Students (Stearns); and 2) Some Acynical Advice (Reply to Stearns)



Social Behavior: genes, ecology and behavior (eds T. Szekely, A. Moore & J. Komdeur)

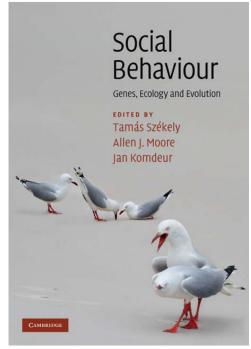
By: Michael Cant

In an influential 1963 paper, Niko Tinbergen divided research questions in animal behaviour into four categories, depending on whether they were concerned primarily with physiological causation,

development, evolutionary history, or 'survival value'. Nevertheless, he emphasised that these different approaches should be viewed as complementary and united by a common aim, namely, to understand why animals behave in the way that they do. "Cooperation between all these workers is within reach," he wrote, "and the main obstacle seems to be a lack of appreciation of the fact that there is a common aim." For most of the ensuing 47 years, insularity and lack of communication across disciplines has remained a barrier to progress. In Social Behaviour: Genes, Ecology and Evolution (eds, T. Székely, A.J. Moore & J. Komdeur), 35 leading researchers from diverse backgrounds take a large collective swipe at this barrier, and make a strong case that the potential for "cooperation between workers" has never been greater.

Early chapters lay the groundwork and set the tone for the book's integrative theme, with excellent reviews of nature-nurture interactions (Sokolowski & Levine), neural and endocrine mechanisms of social behaviour (Adkins-Regan, DeVoogd, Moore), evolutionary game theory (McNamara & Weissing) and social evolution theory (Wenseleers, Gardner, Foster). Subsequent chapters present cutting-edge reviews of specific themes at the forefront of research, such as microbial social evolution (Foster), sexual conflict (Pizzari & Bonduriansky), the evolution of personality and social specialization (Reale & Dingermanse), animal communication (Hauber & Zuk) and neural mechanisms of human cognition (Gallagher & Skuse). The

level of scholarship is high throughout, and together the 21 chapters form a collection of remarkable quality and breadth.



Interspersed with the main chapters are short 'profiles' written by 20 of the most influential and respected figures in the field, including, among others, E.O. Wilson, Bob Trivers, Sarah Hrdy, Nick Davies and Geoff Parker. These provide entertaining and personal accounts of the highs (and lows!) of a life in science. They offer sage advice and lessons learned, and reveal a shared spirit of curiosity, passion, and delight in the puzzles of nature. Each one is fascinating and fun to read.

This an excellent book which promises to define the study of social behaviour for years to come, in much the same way that the volumes edited by Krebs and Davies defined the study of behavioural ecology in the 1980s and 1990s. It is a beacon for an integrated approach to the study of behaviour,

one which bridges the traditional divisions between proximate mechanisms and ultimate causation, and between genes, organisms and ecology. It is also an advert for communication, collaboration, and cooperation in research. Tinbergen would approve.

Michael Cant is a Royal Society University Research Fellow at the Centre for Ecology and Conservation, University of Exeter, Cornwall, UK.



Discussions on Context, Causes and Consequences of Conflict.

A record of the of the 4C workshop held at the Lorentz Center, Leiden University, The Netherlands on 31 August – 4 September, 2009 has been published by the Lorentz Center (2010) as a 144 page paperback by M.R. Kruk & M.Krukde Bruin (Eds.). ISBN 978-90-6824-031-3. Copyright: M.R. Kruk.

The book can be down loaded as free pdf from:

http://www.lorentzcenter.nl/lc/web/2009/343/info.php3?wsid=343, and click Discussions (pdf of book).



This unusual book is a record of five days of open discussions between specialists from virtually all disciplines involved in the study of conflict at a workshop in Leiden. Experts' lectures inspired questions that challenged disciplinary boundaries. The lengthy, electronically recorded discussions were transcribed in Leiden, and corrected by the discussants later. Finally, relevant references were added.

The book is not intended as a rehearsal of published facts, though presentation content can be traced via abstracts and references. The aim is to show how an open confrontation of views, concepts and approaches exposes unexplored gaps in our knowledge and generates new questions. There are many places in this book where the discussants transgress the limits of their own expertise, and express their expectations and reservations

on novel avenues to advance the field.

Discussions as reported here often take place between a few individuals at the fringes of larger meetings. Hence they are lost for the general audience. Yet, the exchange of ideas, theories and results is crucial to advance the study of conflict. This small book shows that such interdisciplinary exchange in the study of conflict is possible, fruitful and even enjoyable.

Suggested by: Menno R. Kruk, Leiden University



An International Symposium
Lady Margaret Hall,
University of Oxford
1 – 3 September 2010

The Wildlife Conservation Research Unit (WildCRU) and the Born Free Foundation hosted the Compassionate Conservation Symposium at Lady Margaret Hall, a college closely associated with WildCRU at the University of Oxford. The Symposium brought together scientists and practitioners from a range of disciplines to debate animal welfare issues in conservation, examine potential synergies, look for practical outcomes and promote a dialogue between these two disciplines that are often perceived as mutually exclusive. The Symposium was organized around the following themes:

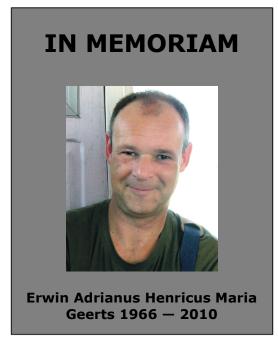
Animal welfare in field conservation

- Captive animal welfare and conservation
- Conservation consequences of wildlife rescue, rehabilitation and release
- International trade in live wild animals

Oral presentations can be downloaded as free pdf's from:

http://www.compassionateconservation.org/

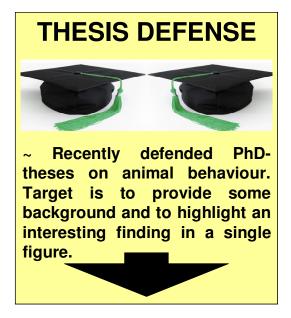
Suggested by: Paul Koene, Wageningen University



We are very sorry to have to pass on the sad news that Dr. Erwin Geerts passed away on the 23rd of August 2010. Erwin received a fatal hit on the head by a tree during a stormy day on his way to his work. He worked at the Wenckebach Institute of the University Medical Center Groningen. His research focused on nonverbal communication in humans, applying ethological approaches to

psychiatric disorders such as depression and schizophrenia. He was a familiar NVG-guest at several Dalfsen meetings. Erwin got his PhD from the University of Groningen in 1997. His thesis on "An ethological approach of interpersonal theories of depression" can be accessed at: http://irs.ub.rug.nl/ppn/164098844

We thank Paul Albers for drawing our attention to a very personal obituary in Trouw (4-10-10) by Ellis Ellenbroek.



Ilse Van Opzeeland from the Alfred Wegener Institute, Bremerhaven, defended her thesis on 'Acoustic ecology of marine mammals in polar oceans' on the 8th of October 2010 in Bremen ('Summa cum laude').



By: Ilse van Opzeeland

In polar habitats, research on marine mammals is hampered by adverse climate conditions restricting human access. Marine mammals are known to produce sound in various behavioural contexts, rendering (hydro-) acoustic recording techniques a suitable tool for monitoring of marine mammal presence and behaviour in polar habitats. Acoustic behaviour is shaped by the speciesspecific behavioural ecology, as well as by abiotic, biotic and anthropogenic factors of the animal's living environment. An understanding of these aspects of the acoustic ecology is important, as they determine if physical presence results in acoustic presence, on which temporal scale acoustic activity occurs, and over which spatial scales acoustic presence can be detected.

My thesis comprises ten chapters based on acoustic data collected in the Southern and Arctic Oceans. All provide examples of how aspects of the acoustic ecology shape acoustic behaviour. In addition, the majority of chapters also illustrate how acoustic monitoring can provide information of physical presence of marine mammals in areas where prolonged visual observations are not possible. I provide an overview of acoustic monitoring techniques, describing their use on various spatial and temporal scales and discussing the suitability of various techniques for use and deployment in polar oceans. I also address the motherpup interactions and the individuality of pup calls in one Arctic and one Antarctic phocid

species (harp, Pagophilus groenlandicus and Weddell seal, Leptonychotes weddellii, respectively). For ice-breeding pinnipeds, differences in ice habitat are likely to lead to inter-specific differences in mother-pup behaviour, but might also explain behavioural differences between populations of the same species. In harp seals, anthropogenic factors (hunting pressure) might explain the differences observed between two study populations.



Figure 1. The PerenniAL Acoustic Observatory in the Antarctic Ocean (PALAOA).

To explore temporal patterns in underwater acoustic behaviour of marine mammals in the Southern Ocean, I analyzed near-continuous, multi-year acoustic data from the PerenniAL Acoustic Observatory in the Antarctic Ocean (PALAOA, 70°31'S 8°13'W, Ekström Ice Shelf, Figure 1), an ice shelf based (70° 31'S, 8° 13'W), energetically autonomous recording station. I report the acoustic activity patterns for four Antarctic pinniped species (Figure 2). Weddell seals were acoustically present year round, which likely relates to the potential advantages to males remaining in underwater territories almost year round. Ross seals (Ommatophoca rossii) were never visually observed in the coastal area off PALAOA.

Acoustic monitoring nevertheless showed that they are physically present from December to February. Leopard seal (*Hydrurga leptonyx*) calls were recorded intermittently year round in three years, reflecting that some (potentially juvenile) leopard seals remain in coastal areas during austral winter.

The PALAOA data also showed that humpback whales (Megaptera novaeangliae) were present during nine months of the year, reflecting the potential importance of coastal areas, such as the area off PALAOA, for animals wintering on the feeding grounds. Similarly, Antarctic blue whale (Balaenoptera musculus intermedia) calls were present year-round, potentially reflecting that this species also relies on coastal areas with open water during austral winter. In addition, seasonal patterns in acoustic presence of an unknown sound source, the 'bioduck', were used to pose new hypotheses on the potential source of this signal.

Acoustic ecology forms the overarching concept that braces all my thesis chapters. Given the so far relatively sparse literature on this concept with respect to marine mammals, I included a first detailed conceptual description of acoustic ecology of polar marine mammals. Particular emphasis thereby is given to the specific environmental conditions in polar habitats and the looming threats of climatic change and other anthropogenic influences.

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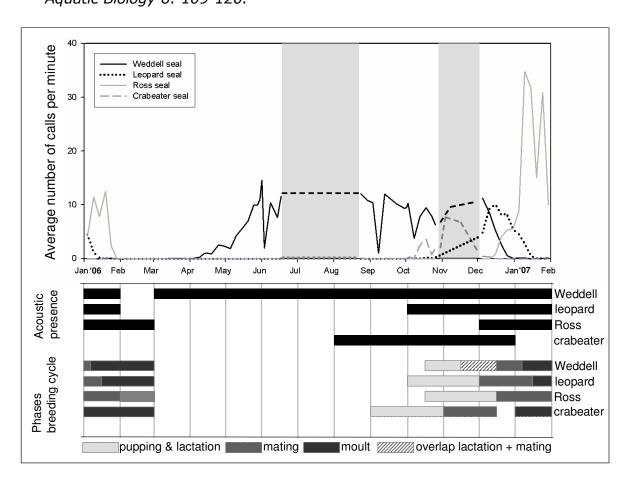


Figure 2. Overall call activity for four marine mammal species in the period January 2006 to February 2007. The average number of calls per minute is calculated per day for all days that were included in the analyses. Call activity in the grey-shaded areas represents counts of 1-min PALAOA samples from 2007 as recordings from these months were not available from 2006 (every fifth day, 2 min each sixth hour). For crabeater seals, call activity in November was based on PALAOA data from 2007 from Klinck *et al.* (2010). The lower schema shows acoustic presence for all four seal species and the timing of the pupping, mating and moulting periods.

Conferences & Meetings

- IFAAB-2011, 15th Annual Meeting of the Interdisciplinary Forum for Applied Animal Behavior 18-20 February, Hotel Provincial, New Orleans, LA, USA, http://ifaab.tripod.com/2011.htm
- ASAB-2011, Easter Meeting of the Association for the study of Animal Behaviour, <u>26-28 April</u>, Anglia Ruskin University, Cambridge, UK, http://asab.ac. uk/meetings/asab.php#easter11
- **IBNS-2011**, 20th Annual meeting of the International Behavioural Neuroscience Society, <u>24-29 May</u>, Steamboat Springs, Colorado, USA, http://www.ibnshomepage.org/
- UFAW-2011, International Symposium on Animal Welfare, 28-29 June, Portsmouth Historic Dockyards, UK, http://www.ufaw.org.uk/UFAWSY MPOSIUM2011.php
- **ISAE-2011**, 45th Congress of the International Society for Applied Ethology, 31 July 4 August, Indianapolis, USA: http://www.applied-ethology.org/isaemeetings
- ASAB-2011, Summer Meeting of the Association for the study of Animal Behaviour: Understanding Animal Intelligence, 18-19 August, St. Andrews, UK, http://asab. nottingham.ac.uk/meetings/asab. php#summer11

- **BCZ-2011**, 18th BeneluxCongress of Zoology, <u>2-4 November</u>, Utrecht, the Netherlands, http://www.bio.uu.nl/~kndv/benelux.html
- NVG-2011, Annual Meeting of the Netherlands Society for Behavioural Biology, <u>23-25</u> <u>November</u>, Kontakt der Kontinenten, Soesterberg, www.gedragsbiologie.nl
- IEC-2011, International Ethological Conference, <u>25-30</u>
 <u>July</u>, joint meeting with the Animal Behavior Society (ABS-2011), Bloomington, Indiana, USA http://www.indiana.edu/~behav1 1/
- ESEB-2011, 13th Congress of the European Society for Evolutionary Biology, 20-25 August, Tuebingen, Germany http://www.eseb2011.de/
- **ISBE-2012**, 14th International Behavioral Ecology Congress, <u>12-17 August</u>, Lund, Sweden, http://www.isbe2012lund.org/
- AquaticNoise-2013, 3rd
 International Conference on the Effects of Noise on Aquatic Life. http://www.an2013.or