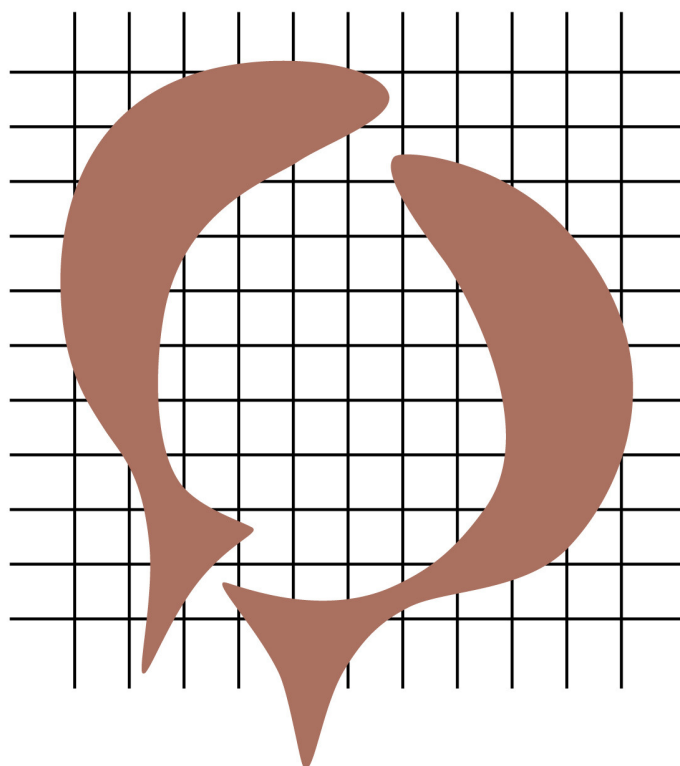


NVG NEWSLETTER
20th year no. 1, June 2011

Nederlandse Vereniging voor
Gedragsbiologie

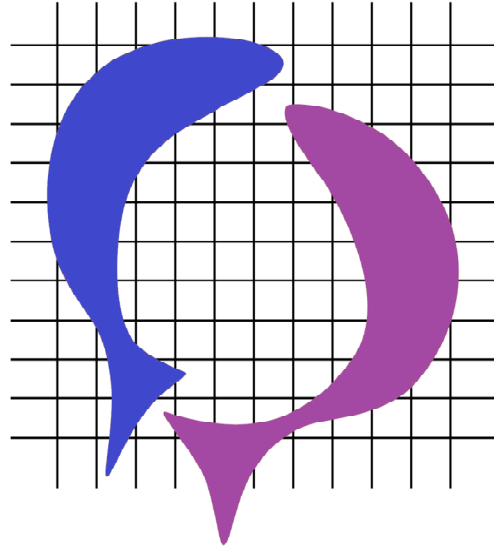


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NETHERLANDS SOCIETY FOR BEHAVIOURAL BIOLOGY

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 distributes this biannual newsletter.



Council members:

Prof. Dr. Simon Verhulst (Chair)
Dr. Ir. Bas Rodenburg (Secretary)
Prof. Dr. Marcel Eens (Belgium)
Dr. Kate Lessells (PhD workshop)
Dr. Bart Houx (Treasurer)
Dr. Martijn Egas (NVG-meeting)
Dr. Hans Slabbekoorn (Newsletter)

More information available at:
<http://www.gedragbiologie.nl>

Contact/Membership:

Dr. Ir. Bas Rodenburg

Phone: 00 31 317 483 936

E-mail: bas.rodenburg@wur.nl

Membership fee: € 25,- per year
for (PhD-)students and biologists in-
between-jobs. Others: € 30,-.

Contributions newsletter:

Dr. Hans Slabbekoorn

Phone: 00 31 71 527 5049

E-mail: h.w.slabbekoorn@biology.leidenuniv.nl

Editorial Preface

This newsletter is full of conferences and meetings to come. This reflects our dynamic field well with lots of activity and enthusiasm. At the same time the financial and political crisis leads to on-going deterioration of our national capacity for education and research. This time Utrecht is in heavy weather. We really have to turn the tide and make science play a more important role in society, instead of only having society play a more important role in science.

The editor: Hans Slabbekoorn

SOESTERBERG



~ Announcement for the next NVG-meeting at the Kontakt der Kontinenten.



The next annual meeting of the NVG will be held from Wednesday 23 until Friday 25 November 2011 in conference hotel 'Kontakt der Kontinenten' in Soesterberg, the Netherlands. Registration will start in September 2011. Dr. Nick Colegrave from Edinburgh University will participate in the PhD-workshop, while two other highlights of the meeting will be the keynote lectures by Prof Jens Krause and Prof Julia Fischer. For more information contact Martijn Egas (C.J.M.Egas@uva.nl).



Jens Krause

Julia Fischer

Jens Krause is Professor of Fish Ecology, at the Humboldt University in Berlin, Germany. He is interested

in mechanisms and functions of group living in animals.

Julia Fisher is Professor at the German Primate Center and Göttingen University. She is Head of the Research Group of Cognitive Ethology and interested in studies on cognition and communication in nonhuman primates to get a better understanding of the evolution of language.

Mark the dates and see you all at Soesterberg 2011, to meet the keynote speakers, and to share your latest findings with your NVG-colleagues!

IN THE SPOTLIGHT



~ Special occasions, honorary lectures, prizes, grants and awards for outstanding behavioural biologists.



In January 2011, Jean-Christophe Billeter started as assistant professor at the Centre for Behavior and Neurosciences from the University of Groningen. He has joined the behavioural biology group of Ton Groothuis.

Billeter: "I am originally from Switzerland, but I have spent most of my research time in laboratories in the USA, United Kingdom, Canada and I am now excited to

begin a new phase of my career in the Netherlands. My research focuses on the neurogenetics of social behaviours in the vinegar fly *Drosophila melanogaster*".



Jean-Christophe Billeter

The new tenure tracker is interested in how individual flies recognize others in their social environment. Billeter: "To understand the mechanisms underlying chemical communication in *Drosophila*, I developed a transgenic system that allows manipulation of pheromone expression. This system specifically targets any chosen gene in pheromone-producing cells called oenocytes (oe)" (see Figure A). "As a post-doc in the lab of Joel Levine (University of Toronto), I used this system to produce flies lacking oenocytes (oe⁻), and concurrently pheromone. Strikingly, wild-type flies interacting with oe⁻ flies misinterpreted both their sex and species (see Figure B). For instance, *Drosophila simulans* males (a sibling species of *D. melanogaster*) are normally not attracted to *D. melanogaster* females, but they mated with the heterospecific females when they were lacking

oenocytes. Mating between the two species was blocked again when a synthetic compound corresponding to the major *D. melanogaster* female pheromone, Z,Z 7,11-Hepacosadiene (7,11-HD), was applied to oe⁻ females. The mating barrier thus relies on a single chemical signal produced by cells in the abdomen of females".

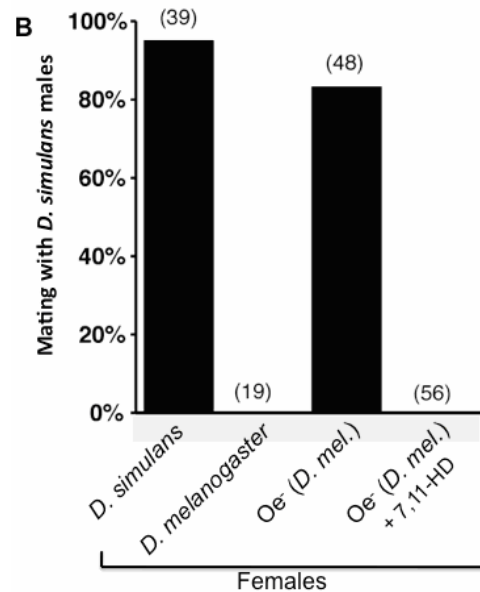
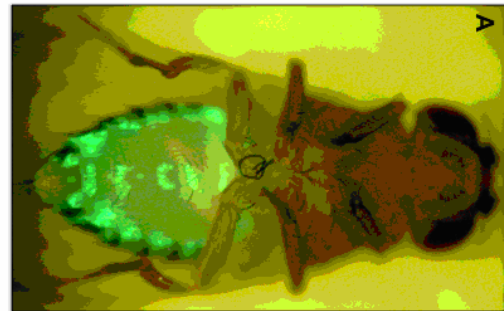


Figure 1: Species recognition in *Drosophila*.

A) Picture of a female *Drosophila melanogaster*. Expression of the Green Fluorescent Protein was targeted to pheromone-producing cells in the abdomen called oenocytes (Green). **B)** Mating between *D. simulans* and *D. melanogaster* is prevented by 7,11-HD. Percentage of male-female pairs mating within 24hr of being housed together. All males are from the *D. simulans* species, and females are indicated below the Y-axis. Number of experimental replicates is indicated between brackets.

At Groningen University Billeter plans to extend his research on chemical communication in flies. He will use previously developed behavioural paradigms looking at groups of flies (which has revealed unsuspected levels of sophistication in *Drosophila* social behaviour). Billeter: "Females, for instance, change their mating pattern when genetic diversity increases in the group, and can block fertilization of their eggs when they have mated with genetically related males in the presence of unrelated ones".

We warmly welcome the Swiss recruit, who also reports to be looking forward to meeting our scientific community: "I am thrilled to join the Dutch society for behavioural biology".

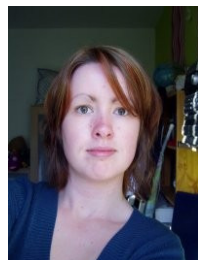
Reference:

1) **Billeter, J.-C., Atallah, J., Krupp, J.J., Millar, J.G. & Levine, J.D. 2009.** Specialized cells tag sexual and species identity in *Drosophila melanogaster*. *Nature* 461: 987-91.

Contact Jean-Christophe Billeter at:
Behavioural Biology, Center for Behaviour and Neurosciences,
University of Groningen
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Phone: +31 50 363 7851

"Learning how to eat like a pig"

On the 22nd of September 2011, a symposium entitled "**Learning how to eat like a pig**" will be held in Wageningen,



on the occasion of the PhD-thesis defence of **Marije Oostindjer** (see picture). An international set of invited speakers will address factors important to developmental and adult stages of food intake in pigs and humans.

Speakers:

1. Benoist Schaal, Centre European des Sciences du Gout, France - Odour-based maternal effects in mammals

2. Suzanne Held, University of Bristol, GB - Foraging strategies in social groups of pigs

3. Gemma Tedo, Lucta SA, Spain - Umami sensory stimulation to improve weaned piglet's performance

4. Liesbeth Bolhuis, Wageningen University - Learning from the mother in an enriched environment

5. Carol Souza da Silva, Wageningen University - Effects of dietary fibre on satiety in pigs

6. Gerry Jager, Wageningen University - Learning how and what to eat in humans

7. Marije Oostindjer, Wageningen University - Perinatal flavour learning and the newly weaned pig

Location: Hotel de Nieuwe Wereld, Marijkeweg 5, Wageningen

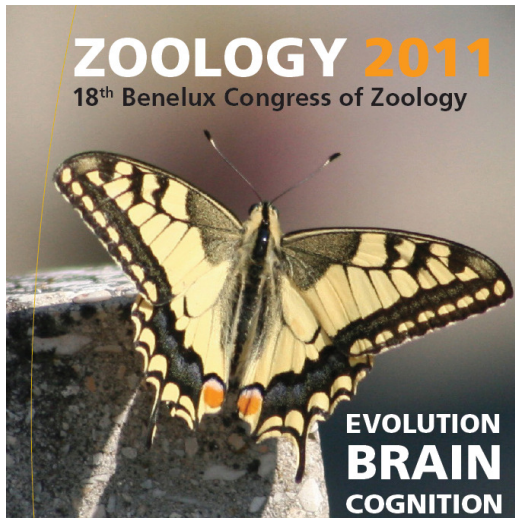
Date/time: September 22nd, 2011, 12:00-18:00

Registration:

piglearning.asg@wur.nl, participants from outside the WUR pay 20 euros cash on the 22nd (includes lunch)

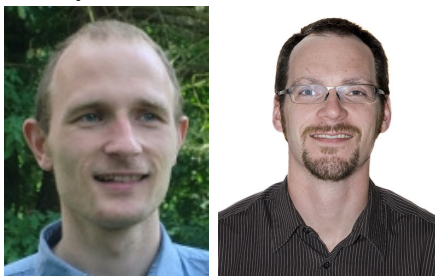


PRODUCTSCHAP DIERVOEDER



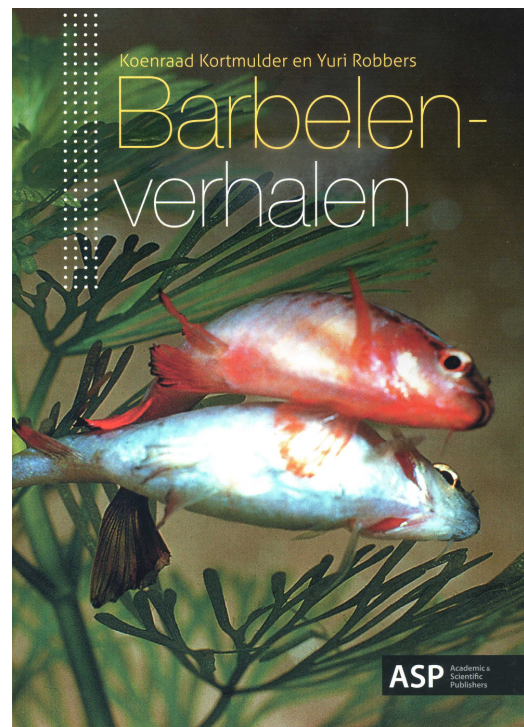
Sexual conflict and behavioural traits: steps towards a mechanistic integration

During the 18th Benelux Congress of Zoology, from the 2nd to the 4th of November 2011 in Utrecht, **Bram Kuijper** (Univ. Cambridge, UK; Univ. Groningen, NL, left picture) and **Joris M. Koene** (VU Univ. A'dam, NL, right picture) will be organising a session that is sponsored by the NVG. The session is titled 'Sexual conflict and behavioural traits: steps towards a mechanistic integration' and will be kicked off by a keynote given by Ted Morrow (Uppsala University, Sweden).



In brief, the session will revolve around the role of sexual conflict as a driving force in shaping

behaviour, such as courtship and mating. By also encouraging focus on genetic and neurobiological architecture of behaviours associated with sexual conflict, the organisers hope to stimulate the integration of different disciplines and approaches used to address this topic. Hence, contributions are welcomed from a broad range of biological fields dealing with reproductive behaviour and sexual conflict.



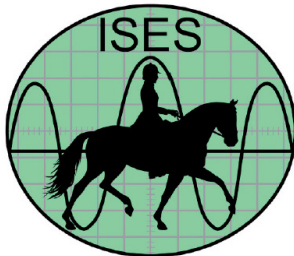
The long-announced book "**Barbelenverhalen; vissen in tropisch water**" by Koenraad Kortmulder & Yuri Robbers has now been published and is available for NVG members at the special price of 20 euro from the authors. No shipping costs. E-mail:

K.Kortmulder@kpnplanet.nl
or Yuri.Robbers@gmail.com

WEB ALERT



~ website suggestions by a colleague with information relevant to our community.



International Society
for Equitation Science

WHAT IS ISES? The International Society for Equitation Science (ISES) is a professional organisation devoted to the scientific study of equestrianism. The Society's mission is to encourage the application of objective research and advanced practice to improve the training and welfare of horses in their associations with humans. ISES provides an international forum in which scientists & veterinarians communicate their recent findings by organising scientific meetings and by encouraging scientific publications. Furthermore, the Society offers a pool of expertise to national governments, international bodies, industry and equine welfare organisations.



International Equitation Science Conference
26th - 29th October 2011, the Netherlands

The ISES 2011 Local Conference Organising Committee would like to invite you to these three events:

- the Popular Equitation Science Day (October 26th 2011)
- the main ISES 2011 conference with the joint GDF Practical day (October 26th – 29th, 2011)
- the Global Dressage Forum (October 30th – 31th, 2011)

For more information and registration please visit these websites:

www.equitationsscience.com/ISES2011

www.globaldressageforum.com

or write to

ISESconference2011@equitationsscience.com

The Local Organising Committee: Dr. Kathalijne Visser, Dr. Machteld van Dierendonck, Drs. Fenna Westerduin, Gijs Bartels and Mirella van Leeuwen.



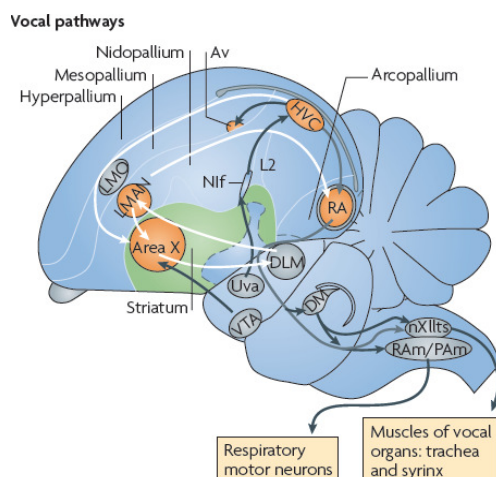
Universiteit Utrecht

Alarm bells for Behavioural Biology at Utrecht University

The Bèta-faculty of Utrecht University has announced that they see no need to retain an integrated research and teaching group for Behavioural Biology. This means an

uncertain future for the excellent and distinct group of Prof. dr. Johan Bolhuis and an uncertain future for students and collaborative parties of the largest University of our country (for Biology). Our Chair Prof. Simon Verhulst has sent an open letter to the Bèta-faculty of Utrecht University, which has also been published in **bionieuws** (9th July), to express the concerns of the NVG.

We believe the target group of Behavioural Biologists plays an essential role in the curriculum at Utrecht University, fits exactly in the new strategy profile of the faculty at Utrecht, while their inherently interdisciplinary interest and expertise puts them at the center of opportunity for local collaborations and synergy. We would also regret the undermining impact of the decision at Utrecht for our solid but small community of scientists in Behavioural Biology at a national level. We hope the alarm bells will have an impact and make the Bèta-faculty of Utrecht University reconsider how they deal with their financial cuts.



From: Bolhuis et al. *Nature Reviews Neuroscience* 2010

THESIS DEFENSE



~ Recently defended PhD-theses on animal behaviour. Target is to provide some background and to highlight an interesting finding in a single figure.



Christiane Trierweiler of Groningen University defended her thesis on: *"Travels to feed and food to breed - The annual cycle of a migratory raptor, Montagu's harrier, in a modern world"* on the 29th of October 2010.

<http://dissertations.ub.rug.nl/faculties/science/2010/c.trierweiler/>

By: Chris Trierweiler

Research goal

Montagu's harriers (*Circus pygargus*) are threatened raptors migrating thousands of kilometers annually between European breeding and African wintering areas. My main research question was which factors in the annual cycle of this species are most important for survival and reproductive success.

Most important results

In the agricultural breeding areas, the availability of small mammal prey positively influenced reproduction and population change. To investigate which habitat types were preferred, 10 Montagu's

harriers in the Netherlands were tracked by radio transmitters. Preferred hunting habitats were luzerne fields, fallow farmland and grasslands. Abundance of preferred habitats at a small distance to the nest positively influenced breeding success.

During several years, 30 Montagu's harriers from Northwest- and Northeast-Europe were tracked by satellite transmitters on their migrations to the African wintering grounds, which they reached via Spain, Italy or Greece (Figure 1). An important stopover site was discovered in Morocco.

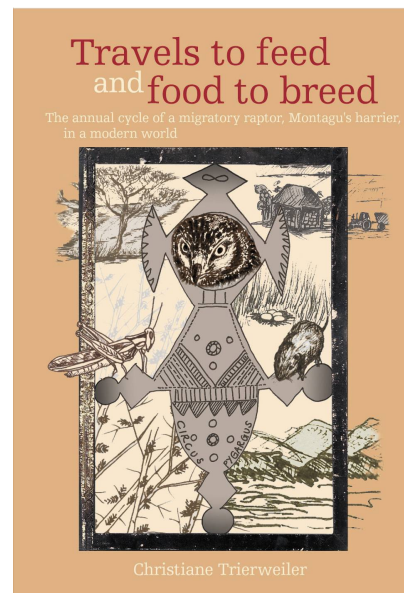
Breeding and wintering populations were closely connected: Birds from western breeding populations wintered to the West of birds from eastern breeding populations (Figure 1). Furthermore, individuals were faithful to their migratory routes, breeding- and wintering grounds. Fieldwork in the West-African Sahel showed that grasshopper prey was an important part of the harriers' diet. The harriers tracked a "green belt" of optimal vegetation (optimal food availability), shifting southwards in the course of the dry season.

Conclusions

A population model showed that nest losses during harvesting activities are under current circumstances the most important factor influencing population dynamics in Montagu's harriers. Furthermore, food availability in the farmed landscape and winter survival are important.

Effective conservation actions include nest protection as well as improving food availability in the

intensively farmed landscape by agri-environmental schemes. Conservation should, however, be year-round, including protection of important stopover- and winter habitats and food sources.



REFERENCES:

- Trierweiler, C., Koks, B.J. & Drent, R.H. et al. 2007.** Satellite tracking of two Montagu's Harriers (*Circus pygargus*): dual pathways during autumn migration. *JOURNAL OF ORNITHOLOGY* : 148: 513-516.
- Koks, B.J., Trierweiler, C., Visser, E.G., et al. 2007.** Do voles make agricultural habitat attractive to Montagu's Harrier *Circus pygargus*? *IBIS* 149: 575-586.
- Trierweiler, C., Koks, B., Bairlein, F., et al. 2006.** Migratory routes and wintering behavior of NW-European Montagu's Harriers revealed by satellite telemetry. *JOURNAL OF ORNITHOLOGY* 147: 265-265.

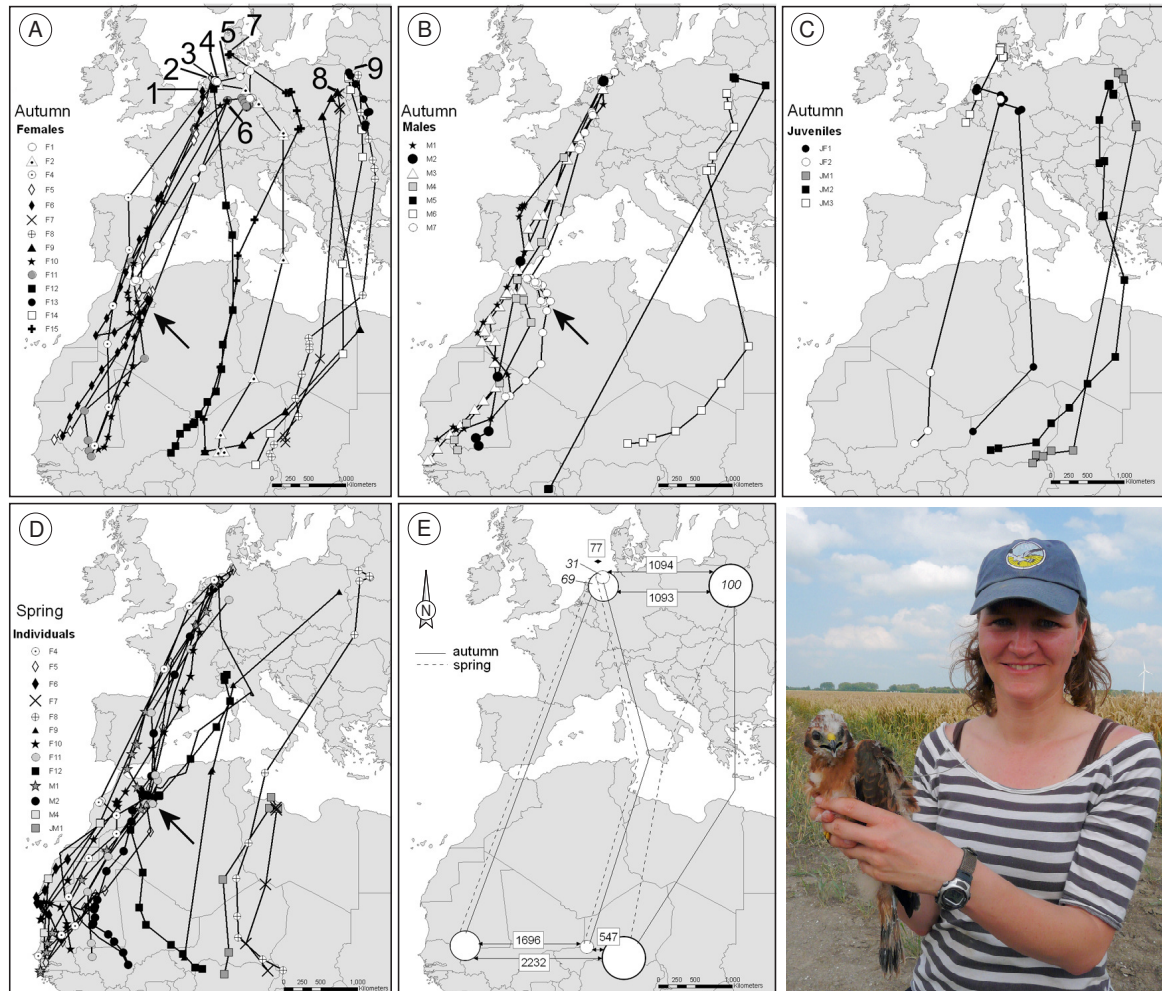


Figure 1. (a-c) Autumn and (d) spring migrations of adult female and male as well as juvenile Montagu's harriers tracked by satellite telemetry (2005-2008). Symbols: satellite localisations, lines: connections between consecutive localisations. Numbers in (a) indicate breeding areas (Netherlands: Flevoland [1], N-Groningen [2], E-Groningen [3]; Germany: Leer [4], Cuxhaven [5], Soest [6]; Denmark: Ballum [7]; Poland: Siedlce [8]; Belarus: Hrodna [9]). Arrows (a, b, d) indicate concentration area in Morocco / Algeria. (e) Circles represent geographical centres of breeding and wintering areas of harrier populations migrating via Spain, Italy or Greece. Circles are drawn to proportion of percentage of NW- respectively NE-European birds using each pathway in autumn (indicated in italics). Lines show simplified migratory movements. Distances between the geographical centres are indicated by arrows and expressed in km (in boxes). Picture at bottom right: Chris Trierweiler with a young Montagu's Harrier carrying a satellite transmitter (Photograph: Arne Hegemann).

Conferences & Meetings

- **IEC–2011**, International Ethological Conference, 25-30 July, joint meeting with the Animal Behavior Society (**ABS–2011**), Bloomington, Indiana, USA
<http://www.indiana.edu/~behav11/>
- **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>
- **ESEB–2011**, 13th Congress of the European Society for Evolutionary Biology, 20-25 August, Tuebingen, Germany
<http://www.eseb2011.de/>
- **EBBS 2011**, Annual General meeting of the European Brain and Behaviour Society, 9-12 September, Seville, Spain,
<http://www.ebbs-seville2011.com/>
- **BCZ–2011**, 18th BeneluxCongress of Zoology, 2-4 November, Utrecht, the Netherlands,
<http://www.bio.uu.nl/~kndv/benelux.html>
- **NVG–2011**, Annual Meeting of the Netherlands Society for Behavioural Biology, 23-25 November, Kontakt der Kontinenten, Soesterberg,
www.gedragbiologie.nl
- **ASAB–2011**, Winter Meeting of the Association for the study of Animal Behaviour: Why do animals mate with the “wrong partner”, 1-2 December, The Zoological Society, London, UK,
<http://biology.st-andrews.ac.uk/shuker/ASAB-Winter-Meeting-2011.html>
- **ABS–2012**, Annual meeting of the Animal Behavior Society, 4-7 June, Albuquerque, New Mexico, USA, <http://animalbehaviorsociety.org/>
- **BGI–2012**, 42nd Annual meeting of the Behavior Genetics Society, 22-25 June, Edinburgh, GB,
<http://www.bga.org/>
- **ISBE–2012**, 14th International Behavioral Ecology Congress, 12-17 August, Lund, Sweden,
<http://www.isbe2012lund.org/>
- **AquaticNoise–2013**, 3rd International Conference on the Effects of Noise on Aquatic Life.
<http://www.an2013.or>

