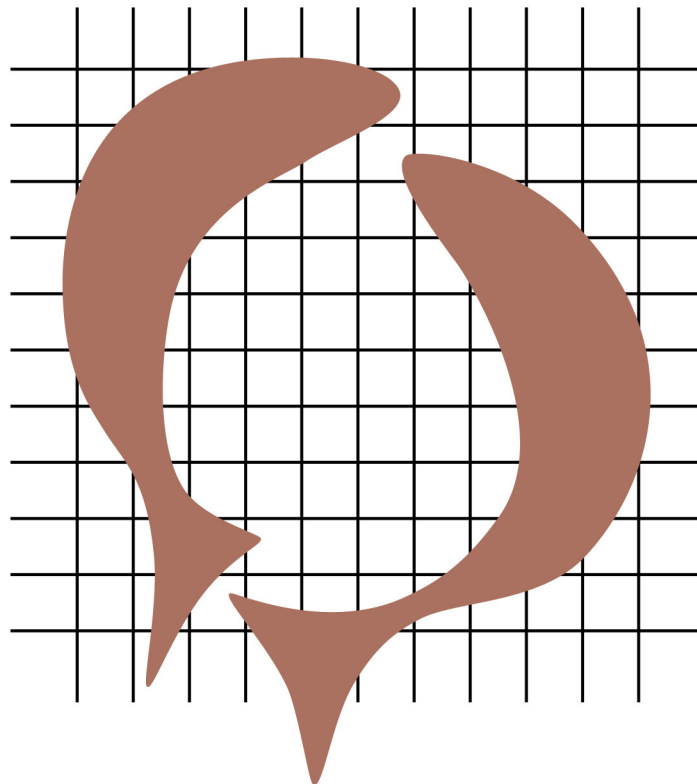


**NVG NEWSLETTER**  
**19th year no. 1, June 2010**

*Nederlandse Vereniging voor*  
**Gedragsbiologie**

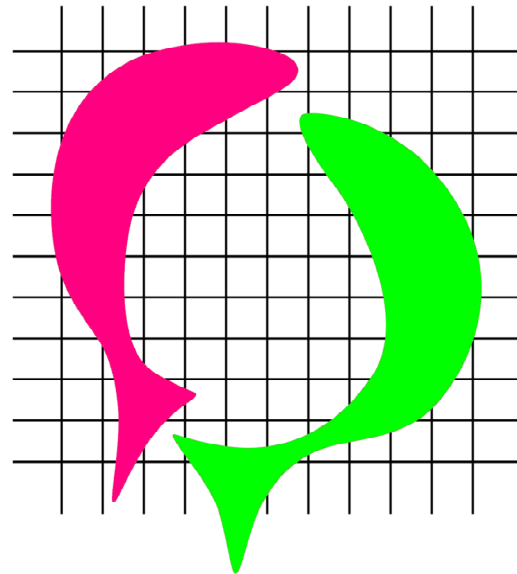


**Inhoud:**

NVG meeting Soesterberg (!) 24-26 November 2010 .....	3
A new Master-track "Statistical Science for the Life and Behavioural Sciences" .....	4
SNEAK PREVIEW: Effects of underwater sound on marine mammals .....	5
Forthcoming: "Barbelenverhalen" by Koenraad Kortmulder & Yuri Robbers .....	7
IN THE SPOTLIGHT: Charlotte Hemelrijk, Martine Maan .....	8
Report from NVG-sponsored symposium "Bring them back" .....	9
THESIS DEFENSE: Erwin Ripmeester on "Song and the City" .....	9
Conferences & Meetings .....	12

# 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](mailto: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](mailto:h.w.slabbekoorn@biology.leidenuniv.nl)

## Editorial Preface

This is the first NVG Newsletter of 2010, reflecting a dynamic Animal Behaviour community. We have a new location for our annual meeting and a new editor for our newsletter. I did my best to include all relevant information, but may have missed some things this first issue. I also made some changes to the layout and style. I hope you will appreciate this, that you will enjoy reading the content, and that you all will help me with improvements and contributions for future newsletters.

**The new editor: Hans Slabbekoorn**

# NVG MEETING SOESTERBERG(!) 24-26 November 2010

By: Martijn Egas

The annual scientific and general meeting of the NVG will take place, as usual, at the end of November on the 24<sup>th</sup> until the 26<sup>th</sup>. The major change this year, however, is that the meeting will no longer take place in Dalfsen but in Soesterberg, at the conference hotel "Kontakt der Kontinenten" (<http://www.kontaktderkontinenten.nl>).

"Why this change of venue?", we can already hear you ask. Primarily, we were forced to look for alternatives because "Mooirivier" in Dalfsen had decided to increase their prices with 30-40% (...!). We were very happy to find "Kontakt der Kontinenten" because it offers comparable meeting facilities for the same price as the 2009 meeting. Moreover, added benefits include: it is more easy to reach (by car as well as public transport), it sports a several-hectares garden/forest for fresh air, and offers useful relaxation options such as a cosy bar (with pool billiard) but also several computers with internet connection. And it is a former convent. Please do check out the website for more impressions and information.

The meeting will officially start with a dinner on Wednesday 24 November at 18h00 followed by the Baerends keynote lecture and will run until 15h30 on Friday 26 November. As usual, the meeting will be in

English. The scientific programme will comprise two evening keynote lectures by prominent international scientists, contributed oral and poster presentations, and the annual general meeting. The meeting ends with the awarding of the poster prizes by the president of the society (Simon Verhulst).

The '**Baerends lecture**' will this year be delivered by **Prof. dr. Theo Bakker** from the University of Bonn (Germany; <http://www.evolution.uni-bonn.de/TBakker.htm>). Theo Bakker has a long career in studying the evolutionary ecology of three-spined sticklebacks (*Gasterosteus aculeatus*, Gasterosteidae) and cichlids (*Pelvicachromis taeniatus*, Cichlidae).



***Gasterosteus aculeatus*, Linnaeus 1758 (Mirre Simons)**

Current research topics include ecological, quantitative genetic, and behavioural studies (both field and lab) on parasite resistance, prey choice, multiple mate preferences (for visual signals including UV), sperm competition, and paternal care. Being originally from The

Netherlands, Theo Bakker is looking forward to update himself on the behavioural biology research nowadays going on in The Netherlands.

The second keynote speaker will be **Prof. dr. Ofer Tchernichovski** from the City College of New York (USA; <http://ofer.sci.ccny.cuny.edu/people/ofere>). Ofer Tchernichovski uses zebra finches to study mechanisms of vocal learning. Recent work focuses on the animal behaviour and dynamics of sound production and vocal learning across different levels of the brain, and physiological and molecular brain processes (e.g., gene expression) that underlie song learning.



***Taeniopygia guttata*, Vieillot 1817 (Hans Slabbekoorn)**

As usual the **PhD workshop**, preceding the meeting, will take place on Wednesday (24 Nov.), between 10h00 and 17h00. The aim is to promote discussion between PhD students in behavioural biology in its widest sense. Especially starting PhD students are encouraged to present their research plans, which will subsequently be discussed with the attending PhD students as well as

several senior scientists. Both keynote speakers will also be present throughout the workshop.

After the summer you will be able to register using the online form available at <http://www.gedragsbiologie.nl>.

Please register before 15 October 2010.

For further information about the annual meeting of the NVG see the society's website or contact:

Martijn Egas (general organisation)  
020-5257748, [C.J.M.Egas@uva.nl](mailto:C.J.M.Egas@uva.nl)

Kate Lessells (PhD workshop)  
026-4791230,  
[k.lessells@nioo.knaw.nl](mailto:k.lessells@nioo.knaw.nl)

Bart Houx (financial issues)  
030-2534868 (2615), [b.houx@uu.nl](mailto:b.houx@uu.nl)

**We hope to see you all in Soesterberg!**

---

## **A new Master-track:**

### **"Statistical Science for the Life and Behavioural Sciences"**

By: Harald van Mil

Behavioural biologists often feel the need to consult expert statisticians due to the complexity of their behavioural data. However, the intrinsic particularities of behavioural biology research call upon a background in the life sciences. Comparable mechanisms in other fields have led to an increased demand for statisticians

with a strong affinity for the Life or Behavioural Sciences. This observation motivated eight institutes, based at Leiden University, the Free University Amsterdam, Erasmus University Rotterdam and Wageningen University and Research centre, to combine forces to create a new and unique master program.

The program started in September 2009 under the name: "Statistical science for the life and behavioural sciences". The courses of the Master-track are designed to connect with a wide range of bachelor curricula. The admission requirements ask for at least one introductory course and a more advanced course in statistics. These may be taken as part of a BSc-degree or as part of a non-academic career. These requirements reflect the type of students we want to attract; people from a wide range of backgrounds, but all with a strong interest in experimental design, data-analytical aspect of research, and affinity with the life or behavioural sciences. We also allow part-time trajectories and enrolment in individual courses.

Already in our first year, we have seen an interesting mix of persons from both academia and the private sector, which was highly valued by our students. For more detailed information on our track and individual courses please consult our webpage:

<http://www.math.leidenuniv.nl/stat-science/>

or sent an e-mail to:

[statscience@math.leidenuniv.nl](mailto:statscience@math.leidenuniv.nl)

Harald van Mil is the general coordinator of the Master-track and works as a lecturer at the Faculty of Science of Leiden University.

## SNEAK PREVIEW



~ **Brief research reports with background, methodology, and preliminary insights into the findings of ongoing research.**



### **Effects of underwater sound on marine mammals**

#### **"Dutch contribution to Behavioural Response Studies in Norwegian waters"**

By: Fleur Visser & Frans-Peter Lam

World-wide there is an increasing concern about the impact of man-made noise in the oceans. Human activities are producing sound underwater, either intentionally, for example with the use of sonar, or unintentionally, such as pile driving or shipping noise. Marine mammals in particular, reliant on sound for foraging, navigation and communication, are vulnerable to these levels of noise (e.g. Tyack 2009).

From a biological perspective, many aspects of the function and use, as



well as safety limits, of underwater sound are not understood. Therefore, in 2005, the Royal Netherlands Navy (RNLN) initiated a research program to address the effect of sonar operations on marine mammals. Several topics were identified: detection, classification and localisation (DCL) of marine mammals with passive acoustics (that is, by listening under water) and the development of mitigation measures (with supporting software and databases) to ensure safe sonar operations.



**Observation ship MV Strønstad with pilot whales (Sanna Kuningas, SMRU)**

A major component of the research program is to investigate behavioural responses of marine mammals to sonar sounds in an experimental set-up. The behavioural research in the field is conducted by TNO (sonar department) in cooperation with the Norwegian Defence Research Establishment (FFI), the Sea Mammal Research Unit (SMRU, UK) and Woods Hole Oceanographic Institution (WHOI, US).

So far, three target species have been studied: the sperm whale (*Physeter macrocephalus*), the longfinned pilot whale (*Globicephala melas*) and the killer whale (*Orcinus*

*orca*). Individual, as well as group behaviour is recorded throughout several phases of the experiment using a Before-During-After observation protocol. Following a pre-tagging phase, one or several individuals are tagged using a suction-cup tag (Dtag, see picture), recording acoustic and dive parameters of the tagged whale(s). Travel path and group behaviour is monitored visually from the observation vessel. In analysis, surface and sub-surface behavioural data is combined to investigate changes in behavioural patterns during sonar exposure.

The team has been successful in completing a series of experiments --a challenge both from a logistic as well as a scientific perspective--- during four sea trials since 2006 (e.g. Kvadsheim et al., 2009). First results and publications are expected in the course of 2010.



**Pilot whale with Dtag (Sanna Kuningas, SMRU)**

Fleur Visser and Frans-Peter Lam work at TNO Defence, Security and Safety, Observation Systems/sonar, The Hague

They can be contacted at:  
Fleur.Visser@tno.nl  
Frans-Peter.Lam@tno.nl

## REFERENCES:

Tyack 2009, Human-generated sound and marine mammals. *Physics Today*, 62(11), 39-44.  
Kvadsheim, et al 2009, Cetaceans and naval sonar --- 3S-2009 cruise report;  
<http://rapporter.ffi.no/rapporter/2009/01140.pdf>  
And see Frans-Peter Lam in Netwerk TV on the impact of noise on marine mammals (together with Hans Slabbekoorn, IBL on fish):  
<http://www.netwerk.tv/uitzending/2010-06-02/geluidsoverlast-bedeigt-vissen>

---

## Forthcoming!

***Barbelenverhalen; 40 jaar vergelijkend onderzoek in laboratorium en veld aan Puntius-soorten (Pisces; Cyprinidae) van Zuid Azië. VUBPress, Brussel.***

By: Koenraad Kortmulder & Yuri Robbers

Eindelijk een wetenschappelijk en toch leuk leesbaar boek over tropische barbelen, de dominante groep van zoetwatervissen in de zuidelijke streken van Azië. Kleurpatronen, gedrag en oecologie worden in verband met elkaar behandeld, beginnend bij wat vlekjes en streepjes en uitlopend op de geomorfologie en oecologie van zoetwatersystemen in Sri Lanka, Zuid India en West Malaysia. Verlucht met heel mooie foto's van diverse soorten door Arend van den Nieuwenhuizen, zwartwit schetsen van situaties in het veldwerk door

de eerste auteur, én natuurlijk grafieken en tabellen.



***Puntius pleurotaenia*, Bleeker 1863 (Adri 't Hooft)**

Maar dat is lang niet alles. Het in grote lijnen chronologische verhaal van het onderzoek gaat vergezeld van herinneringen aan soms al legendarische biologen: kleine, geschreven portretjes van o.a. C.J. van der Klaauw, Jan van Iersel, Keith Nelson, Koos Vijverberg en de plaatselijke leden van wat een hecht team werd: Sena De Silva (Sri Lanka), N. Balakrishnan Nair, en K.G. Padmanabhan (beiden Kerala, Zuid India). Als zodanig ook een stukje wetenschaps-geschiedenis. Tenslotte: sfeervolle en indringende beschrijvingen van landschappen en culturen in de diverse landen.

Na verschijnen (hopelijk vóór de jaarvergadering in Soesterberg) voor NVG-leden te koop bij de auteurs tegen gereduceerde prijs: omstreeks 20 euro. Je kunt het nu al bestellen op:  
[K.Kortmulder@kpnplanet.nl](mailto:K.Kortmulder@kpnplanet.nl) of  
[Yuri.Robbers@gmail.com](mailto:Yuri.Robbers@gmail.com)  
Als het op tijd klaar is af te leveren in Soesterberg; anders zonder verdere kosten over de post.

This comprehensive book in Dutch on tropical barbels of S. Asia (*Puntius*; *Cyprinidae*; the dominant group of freshwater fishes in the

regions) deals with laboratory and field studies on behaviour and ecology, landscapes and cultures of some South Asian countries (Sri Lanka, Southern India, West Malaysia), and reminiscences on some already legendary biologists. The book is illustrated with species portraits in full colour, author's sketches of field work situations and of course tables, graphs and diagrams.

Available, hopefully before the Soesterberg meeting, for NVG members at the special price of approximately 20 euros (Order from the authors at e-mail addresses above).

IN THE SPOTLIGHT



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



**Charlotte Hemelrijk** gave her inauguration speech at the occasion of becoming professor in Theoretical Biology at the University of Groningen on the 8<sup>th</sup> of June 2010. She spoke about: "Slim of niet? Cognitie of zelforganisatie" and addressed her interests in aspects of self-organisation in social systems. Using models, she tries to

produce complex phenomena by self-organisation as a side-effect of interactions of individuals with their environment. Her focus has been on social systems of primates, fish and birds.



**Prof.dr. C.K. Hemelrijk**

**Martine Maan** received the 2010 Zoology Prize from the Royal Dutch Zoological Society on the 11<sup>th</sup> of June at NCB Naturalis in Leiden. She was awarded the prize for her outstanding work on colourful signals in sexual selection. She worked on African cichlid fish as well as on Central American dendrobatic frogs. The work on fish was mainly done during her PhD-work at Leiden University. The work on frogs was done as a post-doctoral fellow at the University of Texas at Austin, USA with fieldwork at the Smithsonian Tropical Research Institute in Panama.







**Dr. Martine Maan at Naturalis (Ole Seehausen)**

## NVG-sponsored symposium

On Wednesday 16th of December 2009, students from Leiden University organized a symposium in the big auditorium at Naturalis, co-sponsored by the NVG. The symposium with the title **"Bring them Back?!"** addressed the behavioural insights and ethical considerations concerned with the reintroduction of animals.

Reintroduction of animals into the wild, from breeding programmes, after long-term captivity, or after being caught from a healthy population elsewhere, remains a controversial issue in conservation. Reintroduction may benefit restoration of a relict or extinct population of a valued species in a presumably suitable natural area. During the symposium there was attention for questions such as: Can crocodiles live together with humans? Should we release forest parrots in cities? Are we helping

individual seals for their or our own feelings? And: Are zoos breeding for conservation or for commercial purposes only?

The chair for the day was Prof. dr. Helias Udo de Haes (CML), and the list of speakers included: Dr. Paul Koene (WUR), Roelant Jonker, MSc (City Parrots), Dr. Denyse Snelder (CML), Dr. Zjef Peereboom (Antwerpen Zoo), and Nynke Osinga MSc (Seal Rehabilitation and Research Centre in Pieterburen)

The symposium was a success with more than 50 attendants from within and outside the University. The website with more background information is still up at: <http://behaviourandconservation.weebly.com/>

## 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.



**Erwin Adriaan Pieter Ripmeester** (Breda, 1980-) defended his thesis on 'Song and the city: a comparison between urban and forest blackbirds' on the 15<sup>th</sup> of December 2009 in the academy building of Leiden University.

<https://openaccess.leidenuniv.nl/dspace/handle/1887/14556>

By: Hans Slabbekoorn

Urban habitats are well-suited for investigations of evolutionary phenomena. Studies on birdsong, a sexually selected trait of key importance to territorial defense and mate attraction, have revealed urban-habitat related evolution in several species. At the moment, it is unclear to what extent these studies concern examples of just cultural evolution. Most studies, except for those on great tits, have no replication at population level, but show correlations at the level of individual territories. High urban noise levels are typically correlated with the use of high song frequencies. Experimental evidence has recently confirmed that these patterns are likely all related to short-term flexibility and largely unrelated to any genetic differentiation.



**Urban *Turdus merula*, Linnaeus, 1758 (Herman Berkhoudt)**

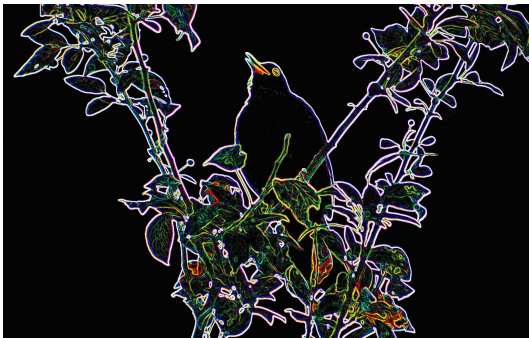
Erwin Ripmeester studied one of the most successful urban bird species in Europe: the blackbird, *Turdus*

*merula*. He found evidence for genetic and morphological divergence among urban and forest populations. He also adds this species to the list of successful urban species that exhibit a habitat-related divergence in song frequency use in line with an explanation of noise-dependent upward shift in cities. However, in contrast to the situation in other species, he found a lack of a clear correlation at the individual level. Song frequencies of individual urban blackbirds are unrelated to local noise conditions, despite the fact that they accumulate to a habitat-dependent shift relative to song frequencies of nearby forest blackbirds (see figure).

The blackbird study is the first to also incorporate seasonal variation and density-dependent influences into the analysis. Furthermore, this is only the second species with reasonable replication at population level, and for which the impact of the divergent trait on male responsiveness is tested through a large reciprocal playback experiment. Variation in response strength by territorial males, in urban and forest territories and to urban and forest songs, indicated that the birds themselves perceive the divergence. Urban birds respond stronger to relatively high songs and forest birds respond stronger to relatively low songs, independent from the source of the song recording and the location of playback.

In conclusion, urban blackbirds have a typical urban phenotype for which the divergent acoustic features affect response behaviour that may

influence habitat-dependent gene flow. Furthermore, *Turdus merula domestica* is probably still largely a cultural phenomenon, but has proven to be an excellent model system to study the initial phases of population divergence. Although the potential for urban speciation is rated as rather low for several reasons, studies like these provide valuable insight into the mechanisms underlying ecological speciation.

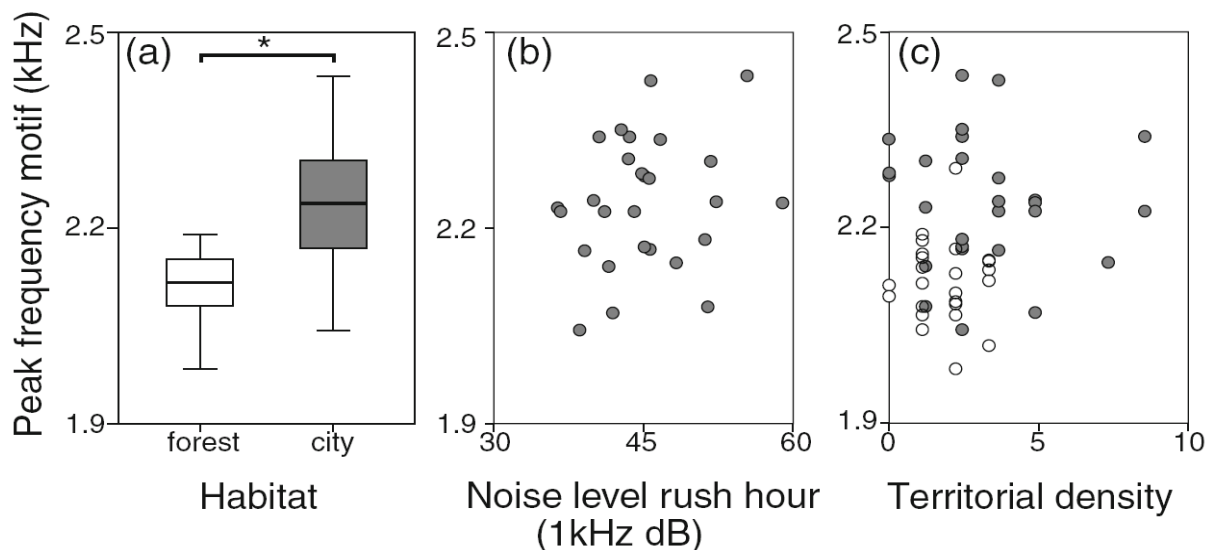


## REFERENCES:

Ripmeester, E.A.P., de Vries, A.M. & Slabbekoorn, H. 2007. Do blackbirds signal motivation to fight with their song? *Ethology* 113: 1021-1028.

Ripmeester, E.A.P., Kok, J., van Rijssel, J. & Slabbekoorn, H. 2010a. Habitat-related birdsong divergence: a multi-level study on the influence of territory density and ambient noise in European blackbirds. *Behavioural Ecology & Sociobiology* 64: 409-418.

Ripmeester, E.A.P., Mulder, M. & Slabbekoorn, H. 2010b. Habitat-dependent acoustic divergence affects playback response in urban and forest populations of the European blackbird. *Behavioural Ecology in press*.



**From figure 3 in Ripmeester et al. 2010a.** Song differences in motif frequency (low notes) between Meijendel forest males (n=24) and Leiden urban males (n=27) expressed (a) at habitat level, (b) at individual level depicted versus local noise levels for the city birds, and (c) at individual level depicted versus territory density (number of singing neighbours within 100 meters) in the forest (open symbols) and in the city (filled symbols).

# Conferences & Meetings

- **ECBB-2010**, 5<sup>th</sup> European Conference on Behavioural Biology, 16-18 July, Ferrara, Italy, <http://www.eseb2010.it/uk/>
- **ABS-2010**, 47<sup>th</sup> annual meeting of the Animal Behavior Society, 25-29 July, Williamsburg, Virginia, <http://www.animalbehavior.org/>
- **ISAE-2010**, 44<sup>th</sup> Congress of the International Society for Applied Ethology, 4-7 August, Upssala, Sweden, <http://www.isaesweden2010.se/>
- **IOC-2010**, 25<sup>th</sup> International Ornithological Congress, 22-28 August, Campos do Jordão, Brazil, <http://www.ib.usp.br/25ioc/>
- **ISBE-2010**, 13<sup>th</sup> International Behavioral Ecology Congress, 26 September – 1 October, Perth, Australia, <http://isbep Perth2010.com/>
- **BCZ-2010**, 17<sup>th</sup> Benelux Congress of Zoology, 22-23 October, Campus Ledeganck, Ghent University, Belgium, <http://www.bcz2010.ugent.be/>
- **NVG-2010**, annual meeting of the Netherlands Society for Behavioural Biology, 24-26 November, Kontakt der Kontinenten, Soesterberg, [www.gedragsbiologie.nl](http://www.gedragsbiologie.nl)
- **ASAB-2010**, Winter Meeting of the Association for the study of Animal Behaviour, Interspecific communication, 2-3 December, London, United Kingdom, <http://asab.nottingham.ac.uk/>
- **IBNS-2011**, 20<sup>th</sup> Annual meeting of the International Behavioural Neuroscience Society, 24-29 May, Steamboat Springs, Colorado, USA, <http://www.ibnshomepage.org/>
- **IEC-2011**, International Ethological Conference, 25-30 July, Bloomington, Indiana, USA <http://www.indiana.edu/~behav11/>
- **ESEB-2011**, 13th Congress of the European Society for Evolutionary Biology, 20-25 August, Tubbingen, Germany <http://www.eseb2011.de/>