



08.10.1982, Germany

# **EDUCATION AND WORK EXPERIENCE**

SWISS ORNITHOLOGICAL INSTITUTE Switzerland

Since May 2017

Post-doctoral research fellow

Department of Bird Migration

UNIVERSITY OF CALIFORNIA, DAVIS

**United States of America** 

May 2016 - May 2017

Post-doctoral research fellow

Laboratory of John C. Wingfield and Marilyn Ramenofsky

**DEAKIN UNIVERSITY** 

Australia

June 2015 - May 2016

**Research Assistance** 

Laboratory of Marcel Klaassen

*January 2012 – June 2015* 

Ph.D. candidate (awarded March 2016)

Advisor: Marcel Klaassen

Thesis title: "Wildlife infectious disease dynamics in the

context of seasonality and bird migration" (read)

SWISS ORNITHOLOGICAL INSTITUTE

Switzerland

2011

**Research Assistant** 

Department of Bird Migration

Supervisor: Steffen Hahn

FRIEDRICH SCHILLER UNIVERSITY, JENA

Germany

2007-2010

**Diploma for Biology** 

Major Courses: ecology, mathematical biology

and genetics

UNIVERSITY OF ROSTOCK

Germany

2003-2006

**Pre-diploma for Biology** 

## - AWARDS AND GRANTS

2016	SICB conference travel grant (350 USD)
2015	DAAD conference travel grant (1,200 Euro)
2015	Winner of best 5-minute talk at the annual conference of the Centre for Integrative Ecology, Deakin University.
2014	Winner of best student talk at annual conference of the Australasian Wader Studies Group
2014	Travel grant for conference in Tokyo, Japan (2,500 Euro)
2012	ANZ – Holsworth Wildlife Research Endowment (7,000 AUD)
2011	3.5-year PhD student fellowship from Deakin University, Australia.
2010	Research grant from the German Ornithological Society (3,000 Euro)
2010	Winner of best student talk at annual conference of the German Ornithological Society, Heligoland.
2010	Winner of best student talk during the annual meeting of the Institute of Ecology, Jena.

#### **PUBLICATIONS**

Research profile on google scholar

h-index 12

767 Citations (February 2019)

- \* under/graduate students
- 5 Key Publication

## **Journal articles**

- **Lisovski., S.** et al. (accepted) Geolocation by light: A user's guide. Journal of Animal Ecology.
- Zhao, M., Klaassen, C., **Lisovski, S.**, Klaassen, M. (*accepted*) The adequacy of aging techniques in vertebrates for rapid estimation of population mortality rates from age distributions. *Ecology and Evolution*.
- Brlík, V. et al. (*accepted*) Weak effects of geolocators on small birds: a meta-analysis controlled for phylogeny and publication bias. *Journal of Animal Ecology*.
- Salewski, S., Flade, M., **Lisovski, S.**, Poluda, A., Iliukha, A., Kiljan, G., Malashevich, U. & Hahn, S. (*accepted*) Identifying migration routes and non-breeding staging sites of adult males of the globally threatened Aquatic Warbler. *Bird Conservation International*.
- Lavers, J. L., **Lisovski, S.** & Bond, A.L. (*accepted*) Preliminary survival and movement data for a declining population of Flesh-footed Shearwater (*Ardenna carneipes*) in Western Australia provides insights into marine threats. *Bird Conservation International*.

- **Lisovski, S.** (2018) Light-level geolocation in polar regions with 24 hours daylight. *Wader Study* 125:129–134.
- Lisovski, S., van Dijk, J., Klinkenberg, D., Nolet, B., Fouchier, R. & Klaassen, M. (2018) The roles of migratory and resident birds in local avian influenza infection dynamics. *Journal of Applied Ecology* 55(6):2963-2975.
  - Bauer, S., **Lisovski, S.**, Eikelenboom-Kil, R., Shariati, M. & Nolet B. (2018) Shooting may aggravate rather than alleviate conflicts between agriculture and migratory geese. *Journal of Applied Ecology* 55(6): 2653-2662.
  - Dhanjal-Adams, K.L., Bauer, S., Emmenegger, T., Hahn, S., **Lisovski, S.** & Liechti, F. (2018) Spatiotemporal group dynamics in a long-distance migratory bird. *Current Biology* 28(17):2824-2830.
  - Brlík, V., Ilieva, M., **Lisovski, S.**, Voigt, C. C. & Procházka, P. (2018) First insights into the migration route and migratory connectivity of the Paddyfield Warbler using geolocator tagging and stable isotope analysis. *Journal of Ornithology* 159(3):879-882.
  - Bracey, A.\* & **Lisovski, S.**, Moore, D., McKellar, A., Craig, E., Matteson, F., Strand, F., Costa, J., Pekarik, C., Curtis, P., Niemi, G. & Cuthbert F. (2018) Migratory Routes and Wintering Locations of Declining Inland North American Common Terns. *The Auk* 135(3):385-399.
  - Russel, T., **Lisovski, S.**, Olsson, M., Spindler, R., Lane, A., Keeley, T., Hibbard, C., Hogg, C., Belov, K., Madsen, T., Ujvari, B. (2018). MHC diversity and female age underpin reproductive success in an Australian icon; the Tasmanian Devil. *Scientific Reports* 8:4175.
  - **Lisovski, S.** et al. (2018) Inherent limits of light-level geolocation may lead to over-interpretations (Comment on Streby et al. (2015) Tornadic Storm Avoidance Behavior in Breeding Songbirds. Curr. Biol. 25, R98-R102.). *Current Biology* 3:100-101.
  - Zhao, M., Christie, M., Coleman, J., Hassell, C., Gosbell, K., **Lisovski, S.**, Minton, C. and Klaassen, M. (2017) Body size shapes inter-specific migratory behaviour: evidence from individual tracks of long-distance migratory shorebirds. *Journal of Avian Biology* 49(1):e01570.
  - Hiemer, D., Salewski, V., Fiedler, W., Hahn, S., & **Lisovski S.** (2017) First tracks of individual Blackcaps suggest a complex migration pattern. *Journal of Ornithology* 159(1):205-210.
  - Zhao, M., Christie, M., Coleman, J., Hassell, C., Gosbell, K., **Lisovski, S.**, Minton, C. & Klaassen, M. (2017) Time versus energy minimization migration strategy varies with body size and season in long-distance migratory shorebirds. *Movement Ecology* 5:23.
  - Raven, N.\*, **Lisovski, S.,** Klaassen, M., Lo, N., Madsen, T., Ho, S.Y. & Ujvari, B. (2017) Purifying selection and concerted evolution of RNA-sensing toll-like receptors in migratory waders. *Infection, Genetics and Evolution* 53:135-145.
- **Lisovski, S.**, Ramenofsky, M. & Wingfield, J.C. (2017) Defining the degree of seasonality and its significance for future research. *Comparative and Integrative Biology* 57(5):934-942.
  - Williams C. et al. (2017) Understanding evolutionary impacts of seasonality. *Comparative and Integrative Biology* 57(2):921-933.
- **Lisovski, S.**, Hoye, B.J. & Klaassen, M. (2017) Geographic variation in seasonality and ist influence on the dynamics of an infectious disease. *Oikos* 126(7):931-936.

- Schmaljohann, H., **Lisovski, S**. & Bairlein, F. (2017) Spatiotemporal-specific reaction norms to the environment and the significance of stopover duration for total speed of migration in a songbird migrant. *Frontiers in Zoology* 14:17.
- Wingfield, J.C., Pérez J., Krause, J, Gonzalez-Gomez, P., **Lisovski, S.,** Chmura, H. & Word, K. (2017) How birds cope physiologically and behaviorally with extreme climatic events. *Philosophical Transactions B* 372:1723.
- Krietsch, J.\*, Kopp, M., Hahn, S., Phillips, R.A., Peter, H.-U. & **Lisovski, S** (2017) Consistent variation in individual migration strategies of brown skuas. *Marine Ecology Progress Series Special Issue* 578:213-225.
- Klaus, S., **Lisovski, S.**, Ritz, M. & Wiesner J. (2017) Zippammer Emberiza cia bei Jena Zusammenfassung der bisherigen Nachweise. *Thüringer Anzeiger* 9:4-10.
- **Lisovski, S.**, Gosbell, K., Hassell, C. & Minton, C. (2016) Tracking the full annual cycle of Great Knot, a long-distant migratory shorebird from the East-Asian Australasian Flyway. *Wader Study*, 123:3.
- van Gils J., Lisovski S., Lok T., Meissner W., Ożarowska A., de Fouw J., Rakhimberdiev, E.,
   Soloviev M. Y., Piersma T. & Klaassen M. (2016) Body shrinkage due to Arctic warming reduces red knot fitness in tropical wintering range. Science, 352:819-821.
- **Lisovski, S.**, Gosbell, K., Christie, M., Hoye B.J., Klaassen, M., Stewart, I., Taysom, T. & Minton C. (2016) Movement patterns of Sanderling (Calidris alba) along the East Asian Australasian Flyway and a comparison of methods to identify crucial areas for conservation. *Emu Special Issue*, 116:168-177.
  - Yamaura Y., Schmaljohann H., **Lisovski S.**, Senzaki M.S., Kawamura K.B.S., Fujimaki Y. & Nakamura F. (2016) Tracking the Stejneger's stonechat Saxicola stejnegeri along the East Asian-Australian Flyway from Japan via China to Southeast Asia. *Journal of Avian Biology*, 47:001-006.
  - **Lisovski, S.**, Fröhlich, A., von Tersch, M., Klaassen, M., Peter, H.-U. & Ritz M.S. (2016) Sex-specific arrival times: hybridizing skuas provide empirical support for the role of sex-ratios. *American Naturalist*, 187:532-539.
  - Bauer, S., **Lisovski S.** & Hahn, S. (2016) Timing is crucial for consequences of migratory connectivity. *Oikos*, 125:605-612.
  - Krietsch, J.\*, Esefeld, J., Braun, C., **Lisovski, S.** & Peter, H.-U. (2016) Long-term dataset reveals declines in breeding success and high fluctuations in the number of breeding pairs in two skua species breeding on King George Island. *Polar Biology* 39:573-582.
  - Grillo, V.L., et al. (2015) Avian Influenza in Australia: A summary of five years wild bird surveillance (2007-12). *Australian Veterinary Journal* 93:387-393.
  - Hahn, S., Emmenegger, T., **Lisovski S**., Amrhein, S., Zehtindijev P. & Liechti, F. (2014) Variable detours in long-distance migration across ecological barriers and their relation to habitat availability at ground. *Ecology and Evolution* 21:4160-50.
  - Salewski, V., Flade, M., Poluda A., Kiljan, G., Liechti, F., **Lisovski S**. & Hahn, S. (2013) An unknown migration route of a globally threatened passerine bird species revealed by geolocators. *Journal of Ornithology* 154:549-552.

- **Lisovski S.** & Hahn S. (2012) GeoLight Processing and analysing light-based geolocator data in R. *Methods in Ecology and Evolution* 3:1055-1059.
- **Lisovski S.**, Hewson C. M., Klaassen R. H. G., Korner-Nievergelt F., Kristensen M. W. & Hahn S. (2012) Geolocation by light: accuracy and precision affected by environmental factors. *Methods in Ecology and Evolution* 3:603-612.
- Kopp M., Peter H.-U., Mustafa, O., **Lisovski S.**, Ritz M. S., Phillips R. A. & Hahn S. (2011) South polar skuas from a single breeding population overwinter in different oceans though show similar migration patterns. *Marine Ecology Progress Series* 435:263-267.
- **Lisovski S.**, Pavel V., Weidinger K. & Peter H.-U. (2009) First breeding record of the light-mantled sooty albatross (*Phoebetria palpebrata*) for the maritime Antarctic. *Polar Biology* 32:1811-1813.



- **Lisovski, S.**, Bauer, S., Emmenegger, T. (2012) GeoLight: Analysis of light based geolocator data. R Package. <a href="http://cran.r-project.org/packages=GeoLight">http://cran.r-project.org/packages=GeoLight</a>
- Wotherspoon S., Sumner S., **Lisovski L.** (2014) SGAT: Solar/Satellite Geolocation for Animal Tracking. R package. <a href="https://github.com/swotherspoon/sgat">https://github.com/swotherspoon/sgat</a>
- **Lisovski, S.** (2016) FourSeasons: R package to calculate major seasonal components. R package. <a href="https://github.com/slisovski/FourSeasons">https://github.com/slisovski/FourSeasons</a>

	PRESENTATIONS & WORKSHOPS					
INVITED —						
2019	Keynote speaker and workshop organiser at Nordic Societa Conference on "Integrating animal migration and population ecology across the annual cycle", Copenhagen.					
2017	Point Reyes Bird Observatory, Petaluma, USA:					
	"Migratory Birds and the Challenges they Face in Our World".					
2016	Integrative Biology Seminar Series – University of Colorado, Denver: "Seasonality and Bird Migration in a rapidly changing World".					
2016	Animal Behavior Seminar Series – Univ. California, Davis: "Animal migration in a changing world".					
2016	American Ornithologists' Union Conference: Workshop – Analysis of					
	light-level geolocator tracking data, Washington DC, Workshop					
	Instructor.					

2015	American Ornithologists' Union Conference: Workshop – Analysis of		
	light-level geolocator tracking data, Oklahoma, USA. Workshop		
	Instructor.		
2013	National Center for Ecological Analysis and Synthesis (NCEAS)		
	Workshop: "Establishing an open-source animal-tracking analysis		
	platform for archival geolocators".		
2011	International Workshop: Geolocation: Tracking animal movements in terrestrial habitats, Swiss Ornithological Institute, Switzerland: Lisovski, S.: Factors influencing the accuracy of light-sensed geolocation: Theory		
	and environmental cues		
RECENT			
CONFERENCES			
2018	International Ornithological Congress, Vancouver, Canada: "Using Mechanistic Models to predicting flyway-wide migration".		
2017	<b>European Ornithological Union, Turku, Finland</b> : "Mechanistic approaches to investigate the consequences of infections on migratory behaviour".		
2017	<b>International Wader Study Group Conference</b> : "Modelling shorebird migration".		
2017	Society of Integrative and Comparative Biology, New Orleans, USA: "Biologically significant dimensions of seasonality".		

# MAJOR SKILLS AND TECHNIQUES

Advanced coding in R, C++, PostGIS, JavaScript

System modelling (SDP, IBM, SIRS, etc.)

Social Network analyses

Developing software tools in R (R packages)

GIS and Remote Sensing data analyses

Analysing animal tracking data (using GPS and geolocation by light)

Animal Identification (birds, mammals, insects, amphibians)

Fieldwork: Catching, banding, blood and tissue sampling of birds

Lab: ELISAs, PCR, Immunoassays

#### TEACHING EXPERIENCE

Course	Description	
Basics of Ecology	Tutorial	Tutor at the Friedrich- Schiller University of Jena.
Disease Ecology & Epidemiology	General introduction into wildlife disease ecology and epidemiology & epidemiological modelling course.	Deakin University, Geelong, Australia
Physiology of Bird Migration	Two lecture series within the general animal physiology lecture series.	University of California, Davis, USA
Vertebrate Structure Function and Evolution	Lecture series and dissection course	Deakin University, Geelong, Australia
Data manipulation for ecologists using R	Graduate workshop series; introduction in R coding and data handling	Deakin University, Geelong, Australia
Analysing ecological data	Graduate workshop series; Statistics and data handling in R	Deakin University, Geelong, Australia
Bird Identifikation	Field course to learn identifying birds (visually and by calls/songs)	Friedrich-Schiller University of Jena.

TEACHING ASSISTANCE Animal Behaviour; Mathematics and Statistics for Ecologists; Monitoring European Flora and Fauna

STUDENT MENTOSHIP Chengfa Benjamin Lee (Intern from the University of Würzburg): Mapping of global tidal mudflats and its long-term changes.

Johannes Krietsch (Master student from the Friedrich Schiller University of Jena): Consistent variation in individual migration strategies of brown skuas.

Nynke Raven, Meijuan Zhao (Undergraduate and Doctoral students at Deakin University, Geelong, Australia).

### MAJOR FIELDWORK EXPERIENCE

AUSTRALIA 2011-2015 **Fieldwork during PhD candidature:** Over 20 field work expeditions across Australia: Capturing, ringing and sampling (blood, feathers and swabs) of birds (> 20.000 Individuals). Organization and supervision of several expeditions into the remote outback of Australia.

CHINA 2015 **Expedition to Poyang Lake in Cooperation with Hefei University:** Catching, sampling and tracking (GPS) of wild goose and ducks

GERMANY AND CHEKIA 2015 **Principal Investigator:** Capturing, marking, sampling (blood and feathers) and tracking (light-level geolocators) of European Rosefinches.

ANTARCTICA
Oct 2008- Mar 2009
Nov 2006 – Apr 2007

**Undergraduate fieldwork:** Monitoring, capturing and sampling of South Polar Skuas and Brown Skuas on King George Island, South Shetland Islands (Stations: AWI Dallmann Laboratory, Germany, Bellingshausen, Russia)

# OTHER PROFESSIONAL ACTIVITIES

# **External Referee for Scholarly Journals**

Journal of Animal Ecology, Journal of Applied Ecology, PNAS, Oikos, Biology Letters, Methods in Ecology and Evolution, Functional Ecology, Global Change Biology, Evolutionary Ecology, Marine Biology, Marine Ecology Progress Series, Ibis, Canadian Journal for Fisheries and Aquatic Sciences, Journal of Avian Biology, Movement ecology, PloS ONE, Polar Biology, Ad-hoc Networks, Stilt, Behavioral Ecology and Sociobiology, Bird Studies, Conservation Biology

# **External Referee for Funding Agencies**

New Zealand Antarctic Research Institute, Hungarian Academy of Science