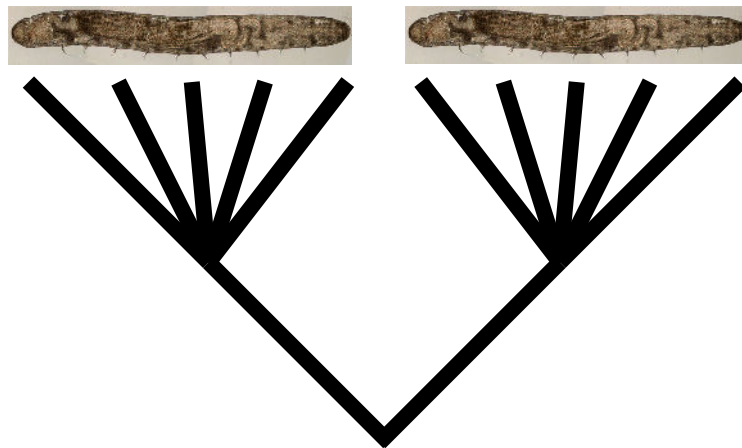


# DZG GRADUATE MEETING ZOOLOGICAL SYSTEMATICS BONN 2015

June 5<sup>th</sup> to 6<sup>th</sup>



Cryptic speciation  
Challenges to modern taxonomy

The delineation of species is a classical topic of biology and correct species identification builds the foundation for many questions in biology including, for example, ecology, conservation biology, biodiversity research, or evolutionary biology. However, the description of species traditionally based on morphological taxonomy has gone through a tremendous change in the last decade. Due to the usage of molecular techniques in taxonomy and barcoding initiatives modern taxonomy is discovering cryptic species at an exponentially increasing pace. Cryptic species are two or more distinct species, which have been classified under one species name due to very high degrees of morphological similarity, but which are genetically distinct. However, the detection and delineation of cryptic species poses several challenges in taxonomy as well as in other biological disciplines. Describing cryptic species under the Zoological Code can be problematic and, moreover, delineation of cryptic species might depend on the applied species concept, delineation method or genetic marker used. All these problems have only recently been more thoroughly faced by taxonomists with respect to cryptic species and are far from being settled. For the applied side, many biological questions require an as best as possible species identification. Given morphological cryptic species are detected on an increasing scale molecular methods have to be employed in this aspect as well. Due to next generation sequencing technologies metagenomics has become a powerful tool in assessments of, for example, species richness in ecological surveys. However, how uncertainties in the delineation of cryptic species affect the metagenomic assessments is also an emerging topic regarding cryptic species.

In this graduate meeting, we address this broad topic with a special emphasis on the challenges encountered by cryptic species. Our four invited speakers will present different topics regarding the detection of cryptic species and are:

Dr. Vera **Fonseca**, Zoological Research Museum Alexander Koenig, Bonn

Dr. Bernhard **Hausdorf**, Zoological Museum Hamburg

Dr. Katharina **Jörger**, Ludwig-Maximillan University, Munich

Prof. Dr. Alfried **Vogler**, Natural History Museum London

The meeting will close with a panel discussion about the challenges in modern taxonomy, but also the challenges on the job market for young taxonomists.

Organizers

Torsten H. Struck

Thomas Bartolomaeus

## Accommodations

### Hotels, hostels and youth hostel

**Hotel Eden** Am Hofgarten (Single room B&B ~93€); <http://www.eden-bonn.de/>

**My Poppelsdorf** (Single room B&B ~70€); <http://www.ameronhotels.com/de/hotels/ameron-myhotels/mypoppelsdorf>

**Hotel Mercedes City** (Single room B&B ~94€); <http://www.hotel-mercedes-bonn.de/>

**Hotel Astoria Bonn** (Single room B&B ~76€); <http://www.hotel-astoria.de/>

**Hotel Krug Bonn** (Single room B&B ~79€); <http://www.hotelkrug.de/index.php/de/>

**Hotel Kurfürstenhof** (Single room B&B ~93€); <http://www.kurfuerstenhof-bonn.de/de/>

**Villa Esplanade** (Single room B&B ~90€); <http://www.hotel-villa-esplanade.de/>

**Altes Treppchen** (Single room B&B ~71€); <http://www.treppchen.de/index.php/hotel>

**Hotel Ibis** (Double room B&B ~57€); <http://www.accorhotels.com/de/hotel-1441-ibis-bonn/index.shtml>

**B&B Hotel** (Single room B&B ~54€); <https://www.hotelbb.de/de/bonn>

**BaseCamp Hostel Bonn** (Single room B&B ~ 55-75€) (individually, more in the outskirts); <http://www.basecamp-bonn.de/>

**Hostel Max** (Single room ~ 33€) (Bonn, city center); <http://www.max-hostel.de/index.php?lang=de>

**GZ Hostel** (close to tram station 63/16 "Tannenbusch Süd"); <http://bonn.gz-hotel.de/>

**Youth Hostel Bonn** (Single room B&B ~65€) (outskirts of city, but bus connection possible); <http://www.jugendherberge.de/de-de/jugendherbergen/bonn438/portraet>

Map by google with [hotels and accommodations in Bonn](#)

(<https://www.google.de/maps/search/Hotels+Bonn/@50.703577,7.1157123,12z/data=!3m1!4b1?hl=de>).

## How to find the meeting venue

### *Address:*

University of Bonn  
Institute of Evolutionary Biology and Animal Ecology  
An der Immenburg 1  
53121 Bonn  
Germany

### **By bus and train**

From the central railway station (platform D2 of central bus station) with bus line 610 or 611 (direction "Duisdorf Bf" or "Lessenich") up to bus station "Auf dem Hügel". This journey takes ca. 10 min. On weekdays the buses operate at 10 min. intervals. See attached plans for schedules. From the bus station "Auf dem Hügel" follow the street uphill for about 150 m and then turn right into the street "An der Immenburg". The institute is the first building on the left side before the left turn of the street. It is set a little bit away from the street.

### **By car**

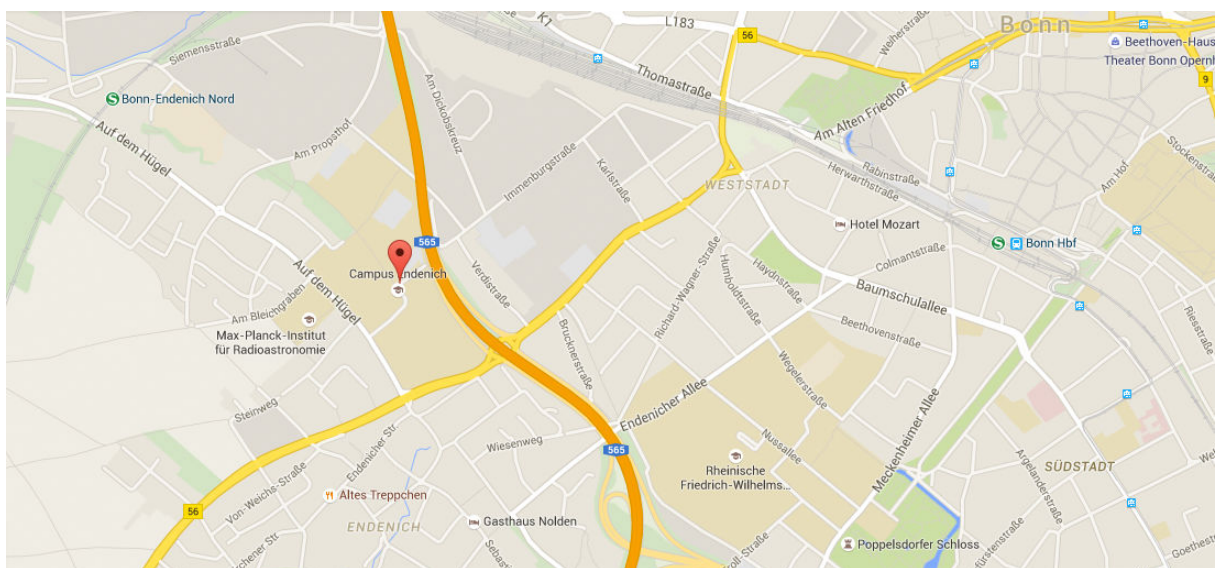
#### **From the North**

Highway 565 up to exit "Bonn-Endenich". Turn right towards "Duisdorf / Hardberg". At the next crossways turn right into the street "Auf dem Hügel". The next intersecting street on the right is "An der Immenburg", left-hand on this street is our institute.

#### **From the South**

Highway 565 up to exit "Bonn-Lengsdorf / Zentrum". Turn left towards "Bonn Zentrum" on the "Provinzialstraße", which later continues as "Hermann-Wandersleb-Ring". When you passed the petrol station "DEA" (ca. 500m) turn at the first crossways left into the street "Auf dem Hügel". The next intersecting street on the right is "An der Immenburg", left-hand on this street is our institute.

### **Map**



Please remember when arriving at Thursday, that it is a public holiday in the state NRW.

## Information concerning talks and posters

The length of the invited presentation is 60 minutes including discussion and the one for contributed ones is 30 minutes. We will have a projector and the presentation can be either uploaded to a computer (we will have PC and Mac OS available) or you can connect your own computer (please bring along adapters as needed). When uploading presentations only PowerPoint will be available on the computers.

Posters should be exactly in portrait DIN A0 (841x1189 mm<sup>2</sup>) format, as we will have special frames for presenting the posters.

As we only have a small number of talks and for ecological reasons saving paper (hopefully) the abstract booklet will be available only as a pdf file. We will send around the pdf file in the week before the meeting by e-mail and it will also be available then via the homepage of the study group (<http://dzg.molekulare-phylogenetik.de/>).

## List of participants of the meeting

Ahlich	Wilko	Carl von Ossietzky University Oldenburg
Alam	Mahbub	University of Iceland
Bahia	Juliana	Ludwig-Maximilian University Munich
Bartolomaeus	Thomas	University of Bonn
Bläser	Marcel	Zoological Research Museum Alexander Koenig
Braun	Michael	University of Heidelberg
Ferrari	Alice	University of Bologna
Fonseca	Vera	Zoological Research Museum Alexander Koenig
Hausdorf	Bernhard	University of Hamburg
Jörger	Katharina	Ludwig-Maximilian University Munich
Kieneke	Alexander	Research Institute Senckenberg
Kilpert	Fabian	Max-Planck-Institute of Immunobiology and Epigenetics
Koczula	Jens	Zoological Research Museum Alexander Koenig
König	Christian	University of Hohenheim
König	Kerstin	University of Hohenheim
Krämer	Daria	University of Bonn
Letsch	Harald	University of Vienna
Malec	Pawel	University of Hohenheim
Menzel	Lena	Research Institute Senckenberg
Oeyen	Jan Philip	Zoological Research Museum Alexander Koenig
Podsiadlowski	Lars	University of Bonn
Soudi	Shaghayegh	University of Bielefeld
Struck	Torsten	Zoological Research Museum Alexander Koenig
Vogler	Alfried	Natural History Museum London
von Döhren	Jörn	University of Bonn
Walther	Frank	University of Hamburg
Weidhase	Michael	University of Leipzig
Werner	Jennifer	Zoological Research Museum Alexander Koenig
Wiggering	Benedikt	University of Hamburg
Wünsche	Elisabeth	University of Leipzig

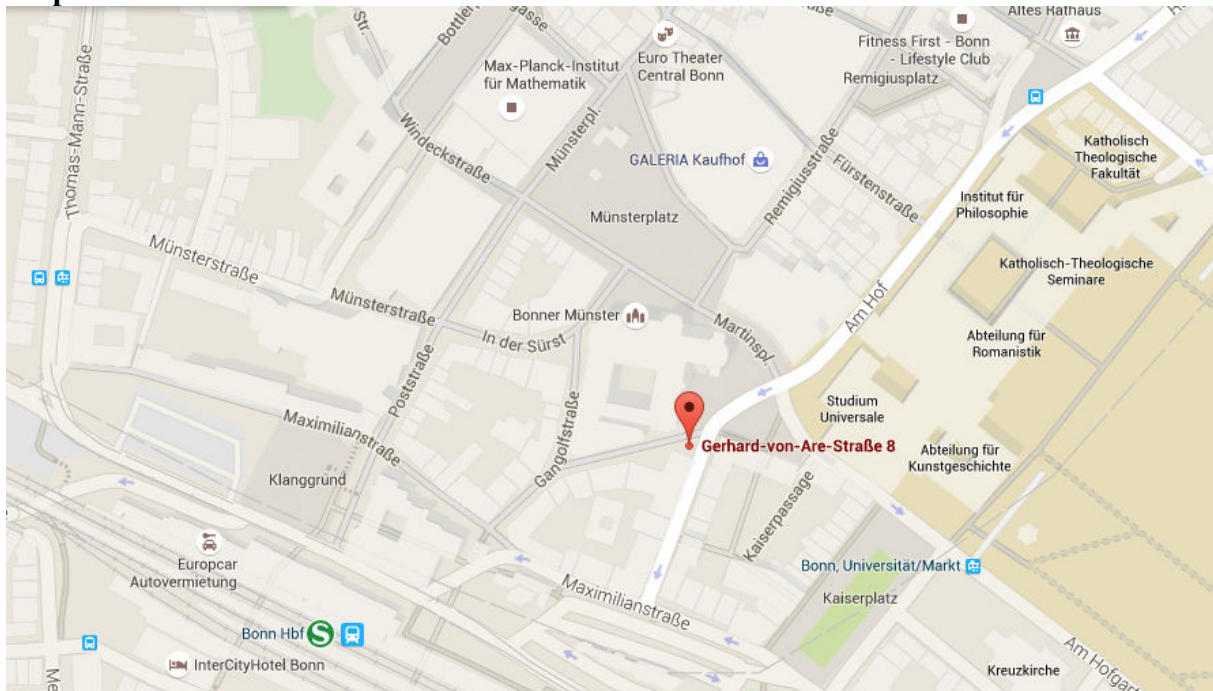
# Graduate meeting Zoological systematics 2015

## Program

Friday 5<sup>th</sup>

13:00-13:15		Welcoming remarks
13:15-14:15	Katharina Jörger	Challenges of including cryptic species into the Linnean System: towards a standard in molecular taxonomy
14:15-14:45	Michael Weidhase	Starting to clarify the phylogeny of Cirratulidae (Annelida)
14:45-15:15	Pawel Malec	The playground for speciation: a local population study
15:15-15:45	Michael Braun	Cryptic speciation in parrots (Aves: Psittaciformes)
15:45-16:30		Coffee break
16:30-17:30	Alfried Vogler	tba
17:30-18:00	Alice Ferrari	A mosaic of cryptic species among the family Rajidae: moving from phylogenetics to phylo-transcriptomics
18:00-18:30	Alexander Kieneke	Towards a phylogeography of the marine gastrotrich <i>Dactylopodola typhle</i> ?
18:30-19:00	Juliana Bahia	Marine flatworm <i>Phaenocelis medvedica</i> (Polycladida: Platyhelminthes): cryptic speciation between Brazil and the Caribbean?
20:30		Dinner at „Tuscolo Münsterblick“, Gerhard-von-Are-Str. 8, 53111 Bonn

## Map



# Graduate meeting Zoological systematics 2015

## Saturday 6<sup>th</sup>

10:00-11:00	Vera Fonseca	Metagenetics as a tool for taxonomy assignment
11:00-11:30	Daria Krämer	Nemertean diversity was likely underestimated in the past – the case of the <i>Lineus ruber/viridis</i> – species complex (Nemertea: Heteronemertea)
11:30-12:00	Benedikt Wiggering	Cryptic species or a continuum of reproductive modes – an assessment of poecilogony in <i>Planaxis sulcatus</i> (Born, 1780) (Planaxidae, Gastropoda, Mollusca)
12:00-14:00		Lunch break with poster session
14:00-15:00	Bernhard Hausdorf	tba
15:00-15:30	Christian König	Decrypting cryptic click beetle species (Coleoptera: Elateridae) by analysis of sex pheromones
15:30-16:00	Mahbub Alam	Mitochondrial DNA variation reveals cryptic species in <i>Fenneropenaeus indicus</i>
16:00-16:30		Coffee break
16:30-17:30		Panel discussion
18:00		Social event in the garden of the institute

## Poster

Kerstin König	Does early learning drive ecological divergence during speciation processes in parasitoid wasps?
Harald Letsch	DNA barcoding and phylogenetic relationships in the weevil subfamily Apioninae
Shaghayegh Soudi	Cryptic reproductive isolation provides a strong barrier to gene flow between the host races of <i>Lochmaea capreae</i> leaf beetles
Frank Walther	Comparison of diversification patterns of Caucasian hygromiid land snails
Elisabeth Wünsche	Molecular and morphological investigation of the <i>Cirratulus cirratus</i> species complex (Cirratulidae, Annelida)