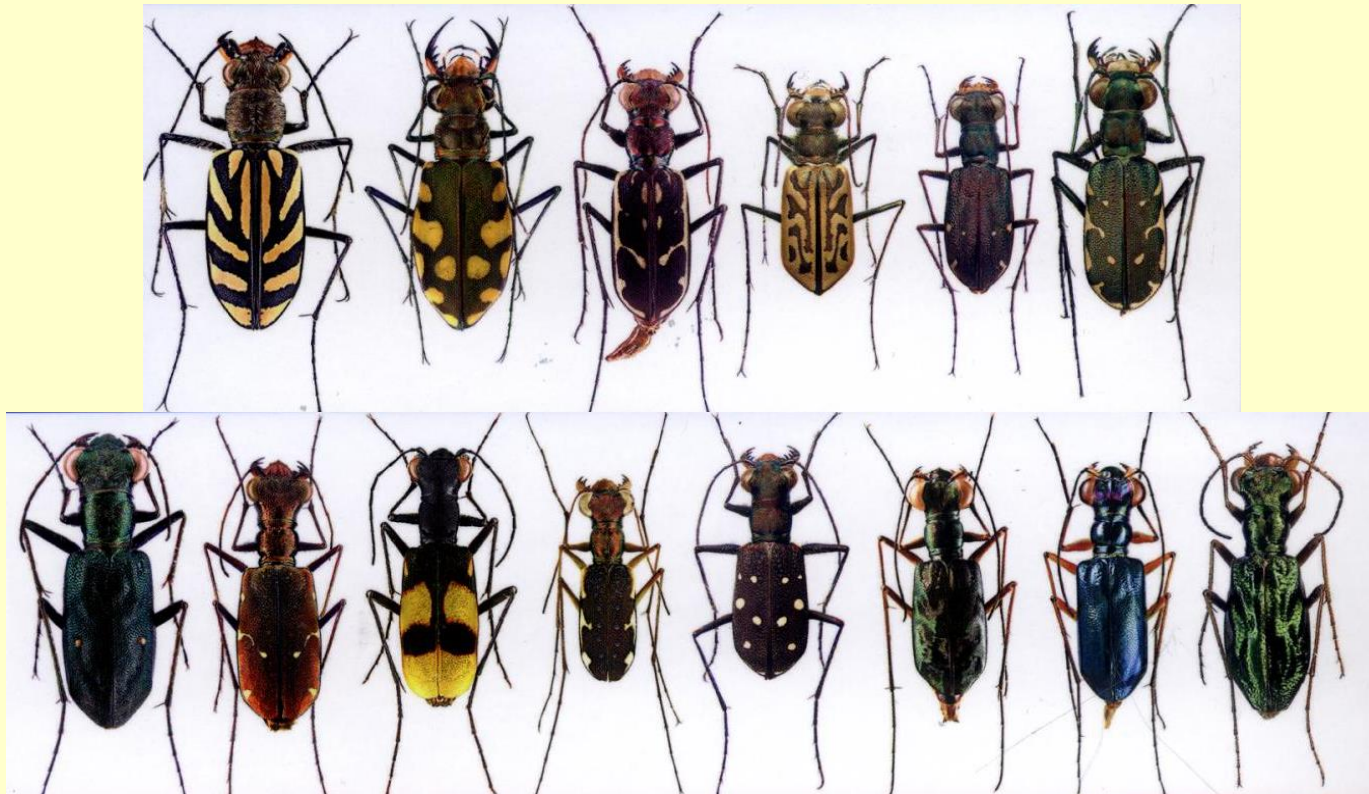
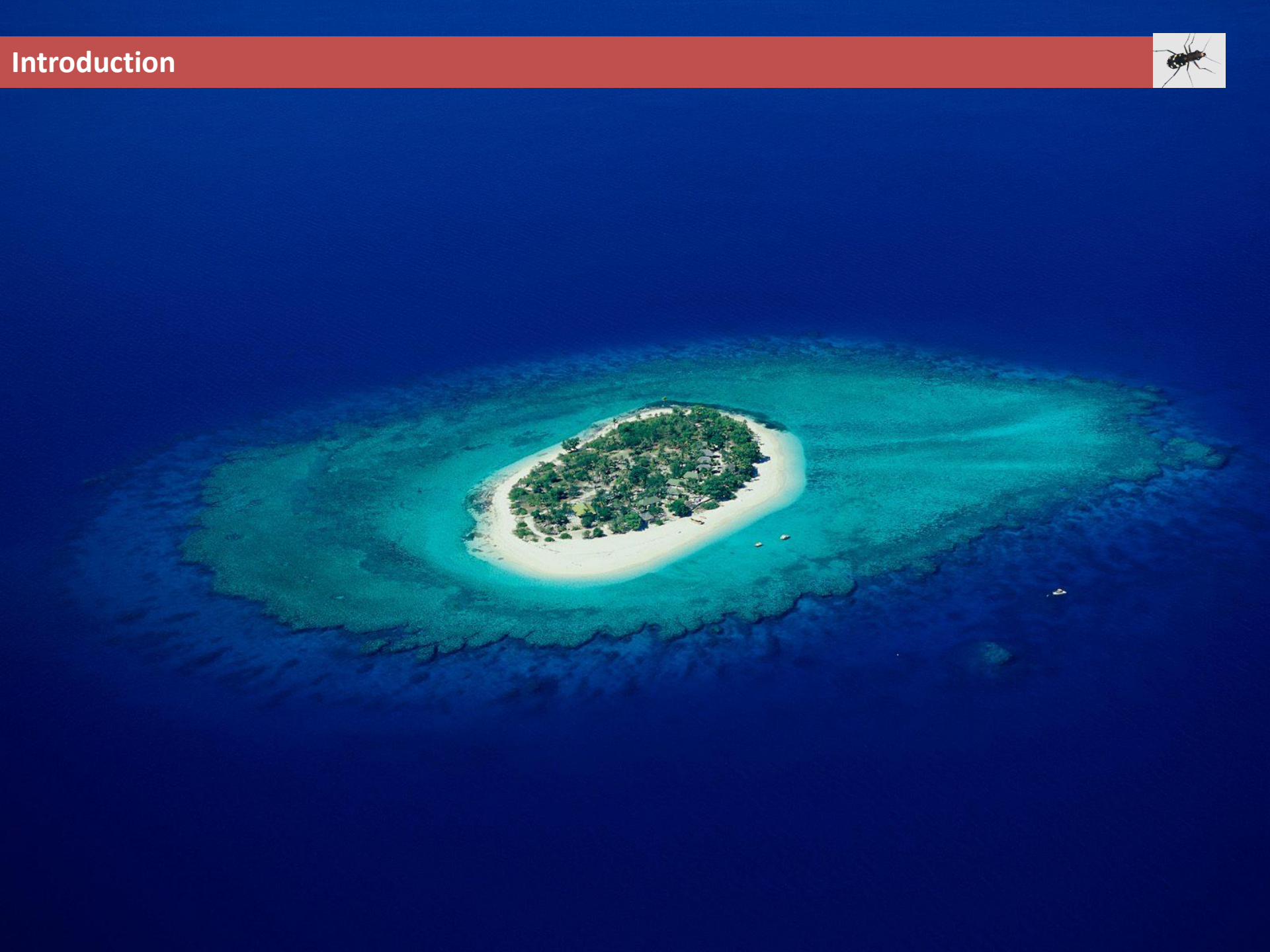


Molecular analysis of Madagascan tiger beetles (Coleoptera: Carabidae: Cicindelinae)



Alejandro López-López, José Galián
Área de Biología Animal
Universidad de Murcia









Comparative phylogeography of tenebrionid beetles in the Aegean archipelago: the effect of dispersal ability and habitat preference

ANNA PAPADOPOULOU,^{*,†} IOANNIS ANASTASIOU,[‡] BEKIR KESKIN[§] and ALFRIED P. VOGLER^{*,†}
^{*}Department of Entomology, Natural History Museum, London SW7 5BD, UK, [†]Division of Biology, Imperial College London, Silwood Park Campus, Ascot, Berkshire SL5 7PY, UK, [‡]Department of Biology, University of Athens, Panepistimioupolis, GR-157 84 Athens, Greece, [§]Zoology Department, Section of Biology, Faculty of Science, Ege University, 35100 Bornova-Izmir, Turkey

Islands under the desert: molecular systematics and evolutionary origins of stygobitic water beetles (Coleoptera: Dytiscidae) from central Western Australia

S. J. B. Cooper^{A,E}, S. Hinze^{A,B}, R. Leys^A, C. H. S. Watts^C and W. F. Humphreys^D

Molecular taxonomy and phylogenetic affinities of two groundwater amphipods, *Crangonyx islandicus* and *Crymostygius thingvallensis*, endemic to Iceland

Etienne Kornobis^{a,*}, Snæbjörn Pálsson^a, Dmitry A. Sidorov^b, John R. Holsinger^c, Bjarni K. Kristjánsson^d

^a Department of Biology, University of Iceland, Askja, Sturlugata 7, 101 Reykjavik, Iceland

^b Institute of Biology and Soil Science, Far Eastern Branch of the Russian Academy of Sciences, Vladivostok 690022, Russia

^c Department of Biological Sciences, Old Dominion University, Norfolk, VA, USA

^d Department of Aquaculture and Fish Biology, Hólar University College, Háeyri 1, 550 Sauðárkrókur, Iceland





Molecular Phylogeny and Biogeography of the Native Rodents of Madagascar (Muridae: Nesomyinae): A Test of the Single-Origin Hypothesis

Sharon A. Jansa,^{*,1} Steven M. Goodman,[†] and Priscilla K. Tucker^{*}

**Museum of Zoology and Department of Biology, University of Michigan, Ann Arbor, Michigan 48109; and
†The Field Museum of Natural History, Roosevelt Road at Lake Shore Drive, Chicago, Illinois 60615; and
WWF, B.P. 738, Antananarivo (101), Madagascar*

Adetomyrma, an enigmatic new ant genus from Madagascar (Hymenoptera: Formicidae), and its implications for ant phylogeny

PHILIP S. WARD Department of Entomology, University of California, Davis, California, U.S.A.



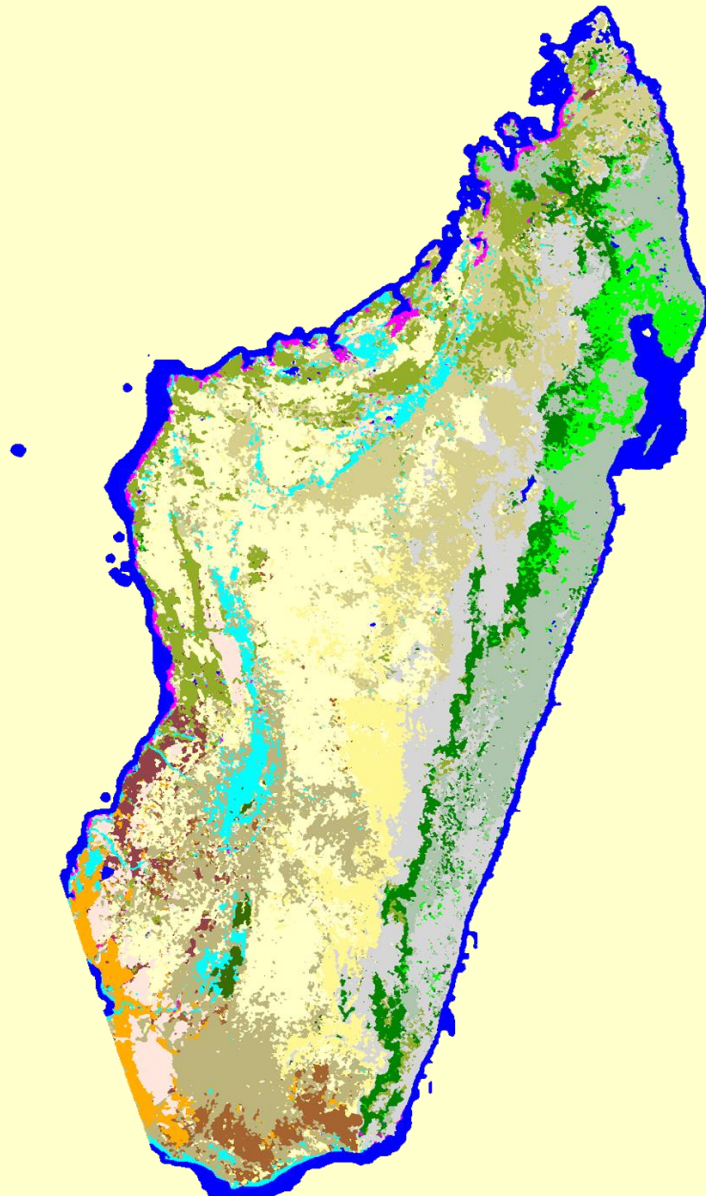
Molecular Evidence for the Monophyly of Tenrecidae (Mammalia) and the Timing of the Colonization of Madagascar by Malagasy Tenrecs

Christophe J. Douady,^{*} Francois Catzeflis,[†] Diana J. Kao,[‡]
Mark S. Springer,^{‡,1} and Michael J. Stanhope^{*,1,2}

Multiple colonization of Madagascar and Socotra by colubrid snakes: evidence from nuclear and mitochondrial gene phylogenies

Z. T. Nagy, U. Joger, M. Wink, F. Glaw and M. Vences

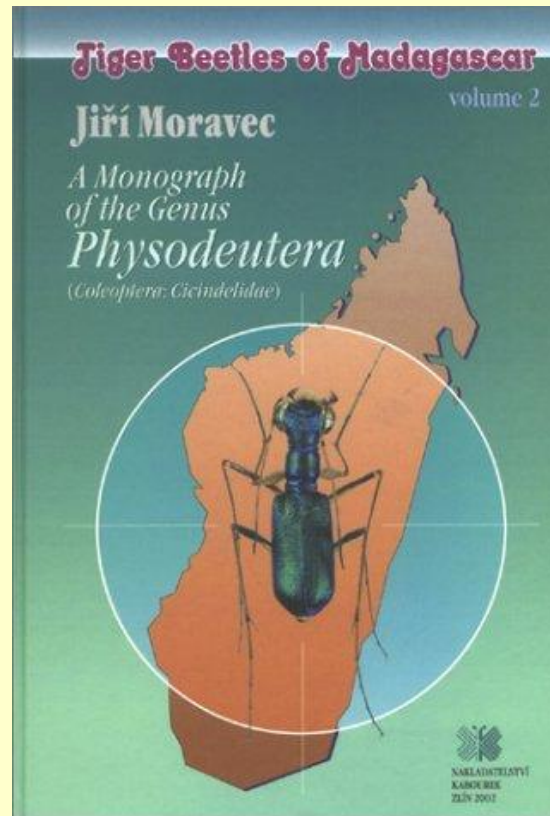
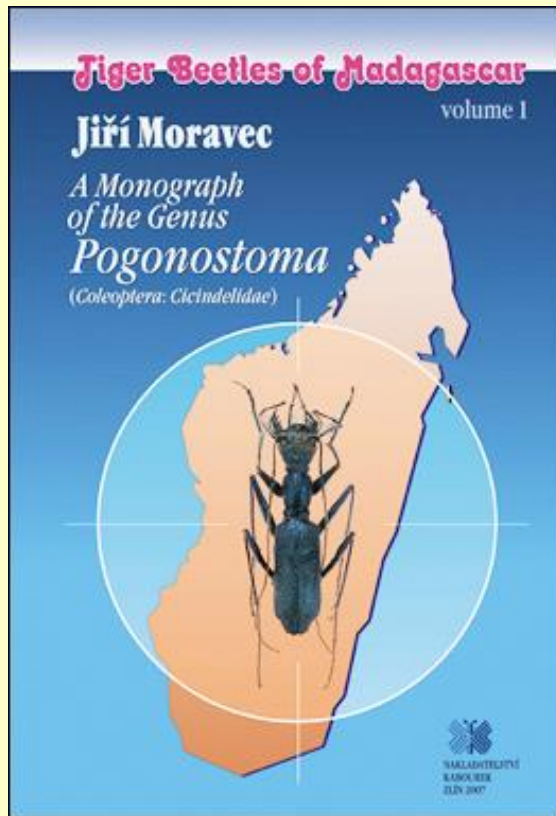














Pogonostoma

110 species

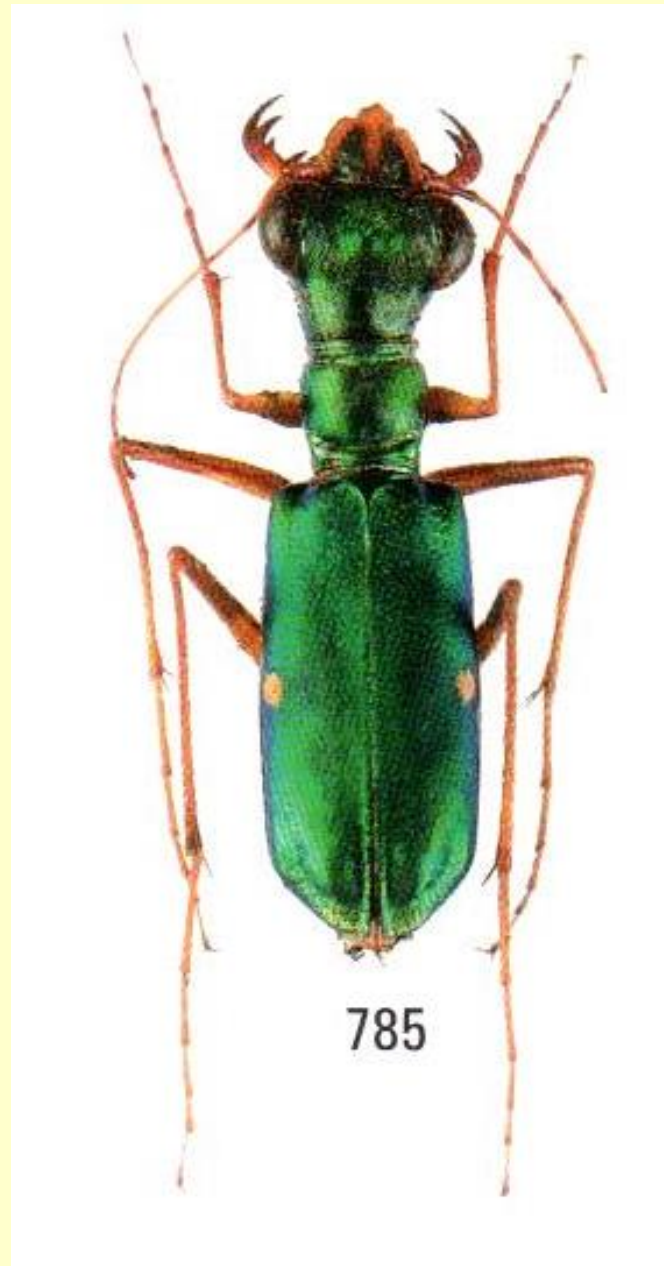
16 subgenera, probably
genera





Physodeutera

67 species





Larva of *Pogonostoma*
Photo by Nicolas Cliquennois





Chaetotaxis

10 species



- C. macropus*
- C. descarpentriesi*
- C. soalalae*
- C. leptographa*
- C. serieguttata*
- C. grandidieri*
- C. cicindeloides*
- C. isaloensis*
- C. rugicollis*
- C. katsepyana*
- C. multifoveolata*



Ambalia
2 species



A. aberrans
A. satura



Waltherhornia
2 species



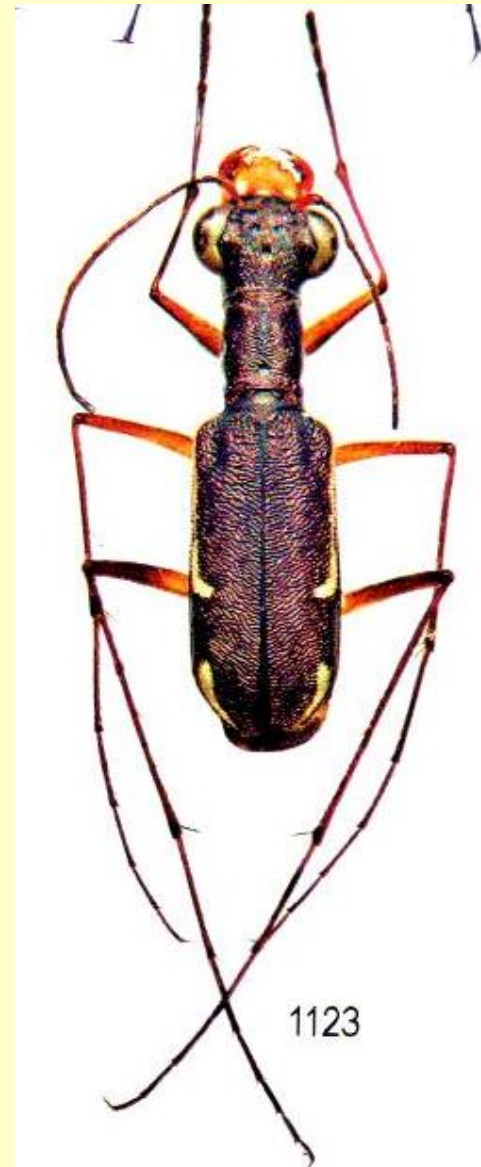
W. speculifera
W. skrabali



Calyptoglossa frontalis



Stenocosmia tenuicollis





Hipparidium

9 species, with transitions, probably subspecies of *H. equestre*. Ecological diversity is higher in Malagasy taxa than in continental taxa.



H. equestre
H. albosinuatatum
H. conturbatum
H. clavator
H. obliqueclavatum
H. micheli
H. osa
H. perroti
H. alluaudi



Cylindera

3 subgenera: *Cicindelina*,
Ifasina, *Eugrapha*

9 species



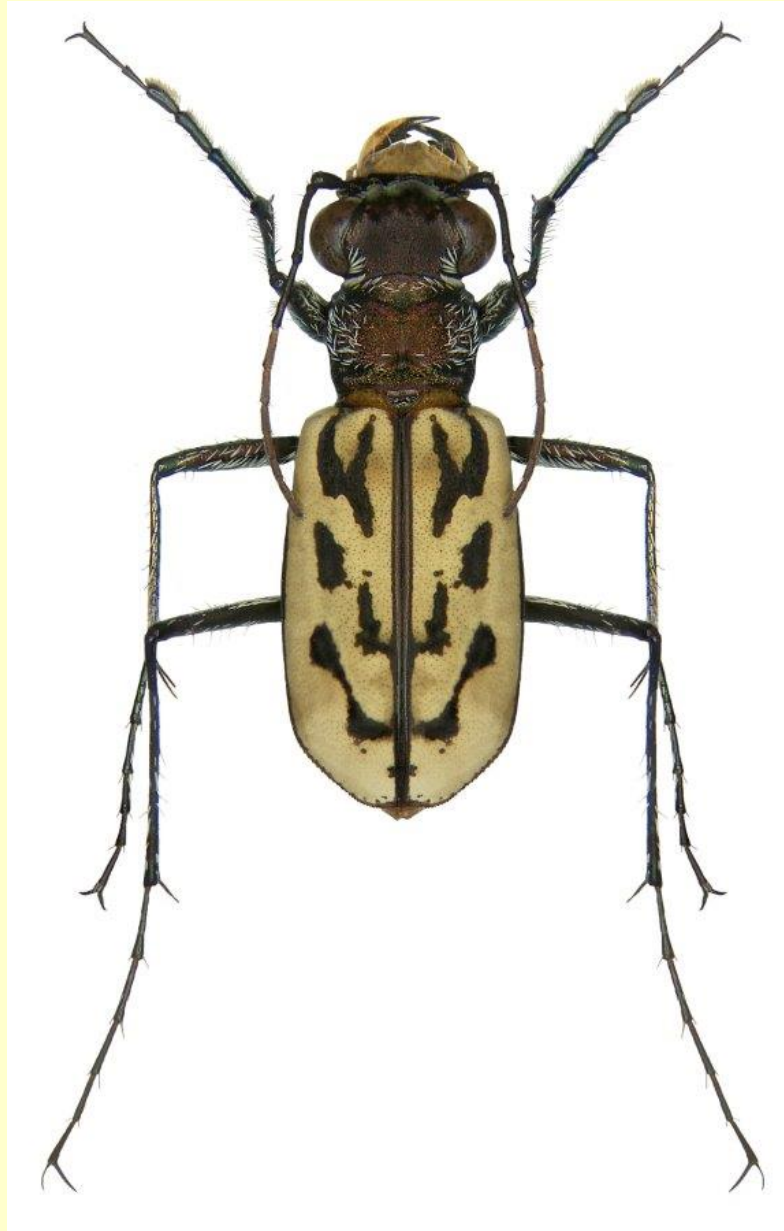
- C. (C.) pierroni*
- C. (C.) sakalava*
- C. (I.) fallax*
- C. (I.) constricticollis*
- C. (I.) disjunctoides*
- C. (I.) jeanneli*
- C. (I.) umbratilis*
- C. (I.) ramenensis*
- C. (E.) zaza*



Lophyra

6 species.

Controversial.



L. perrieri
L. antatsima
L. tetradia
L. abbreviata
L. vitula
L. quadraticollis



Peridexia
4 species



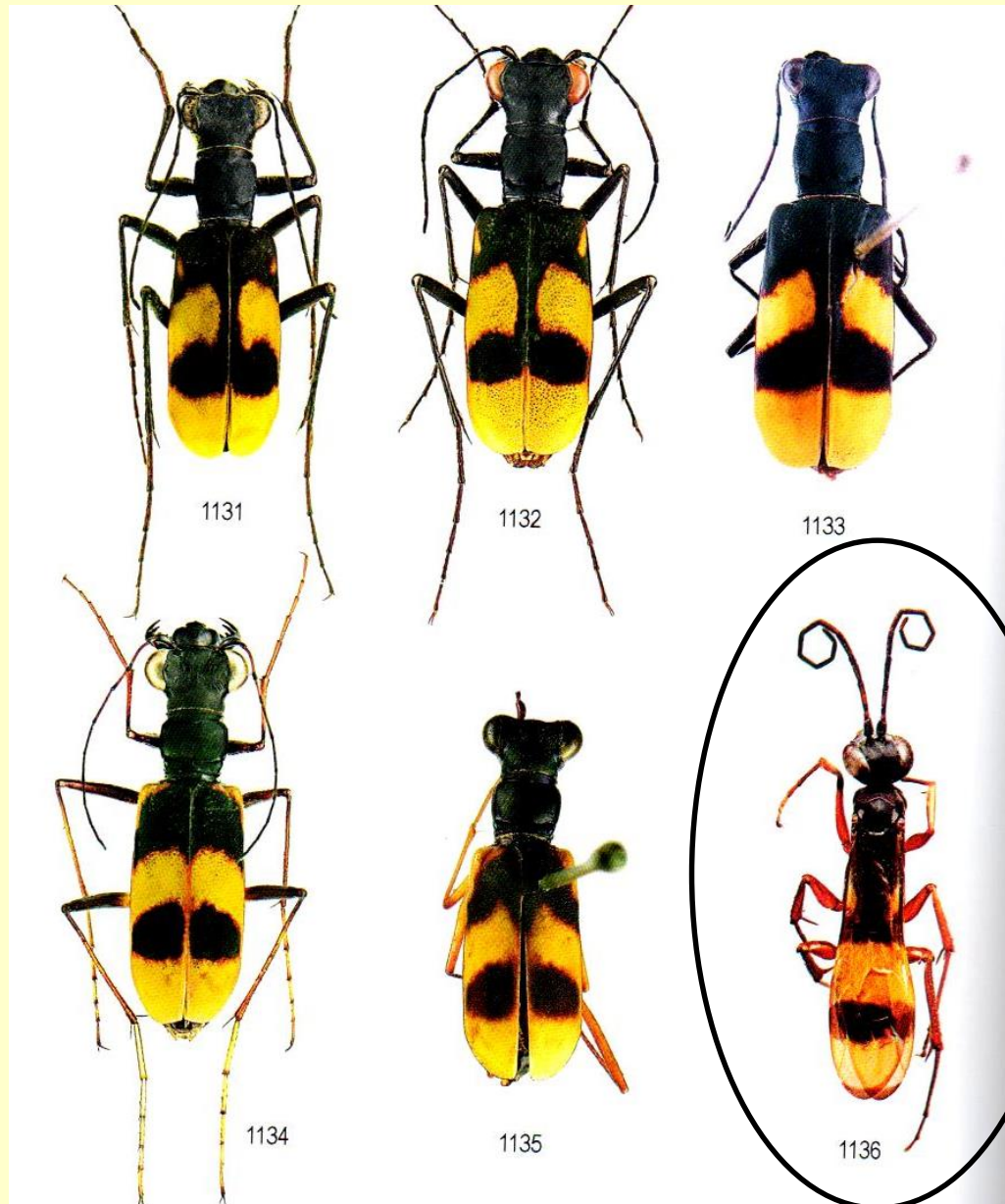
P. hilaris
P. fulvipes
P. glaesariana
P. ambanurensis



Peridexia

4 species

Mimicry with
Pogonium



P. hilaris
P. fulvipes
P. glaesariana
P. ambanurensis



Chaetodera

2 species, closely related to *C. regalis* (Africa), probably the same species.



C. andriana
C. maheva



Habrodera
2 species.



H. ovas
H. truncatilabris



Myriochila

2 species with wider
distribution



M. trilunaris trilunaris
M. perplexa perplexa

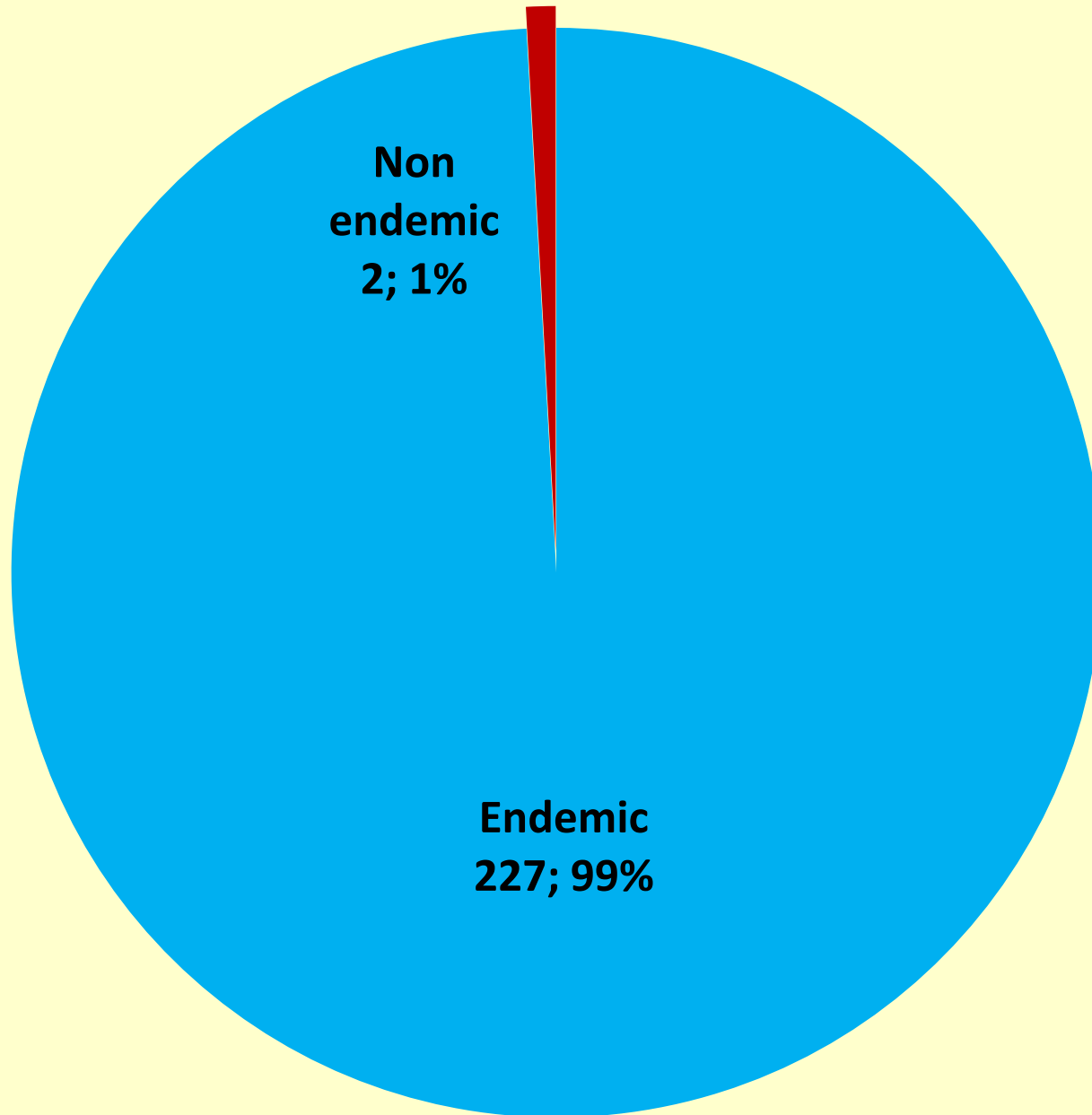


Calomera cristipennis



Prothyma radama







What do we want to do?

We want to study the colonization of Madagascar by tiger beetle lineages and their radiation in the island. At the same time, we will contribute to clarify some controversial taxonomic relationships.

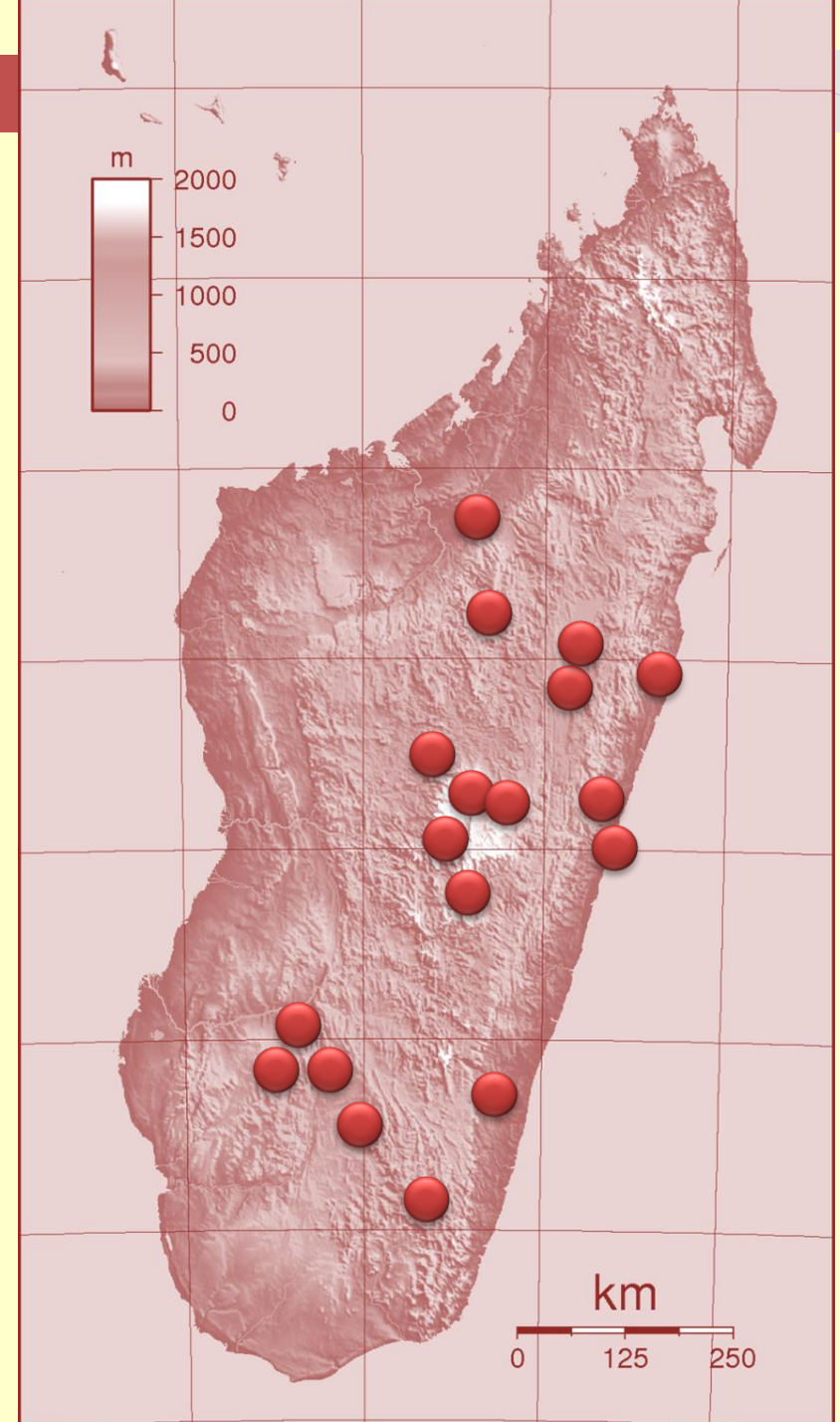
How are we dealing with it?

We are reconstructing a molecular phylogeny of endemic and related species.

Material and methods

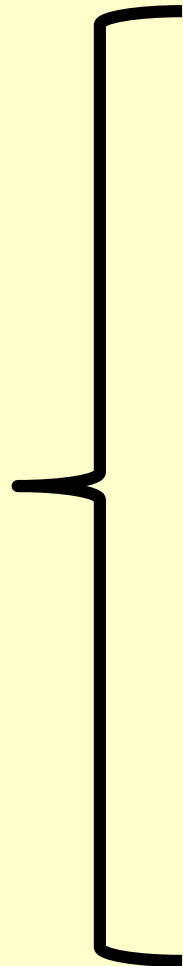


Localities:
43 Madagascar
12 Southern Africa





841

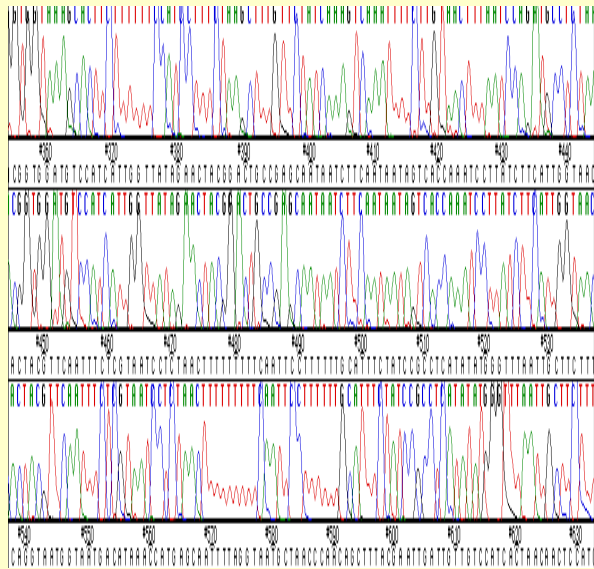
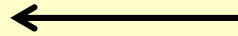
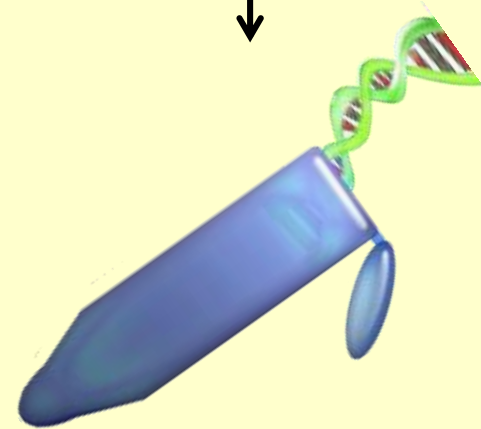
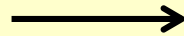


- Hipparidium*
- Cylindera (Cylindera)*
- Cylindera (Ifasina)*
- Lophyra*
- Chaetodera*
- Habrodera*
- Myriochila*
- Calomera cristipennis*
- Prothyma radama*



Dromica laticollis (W.Horn, 1903)

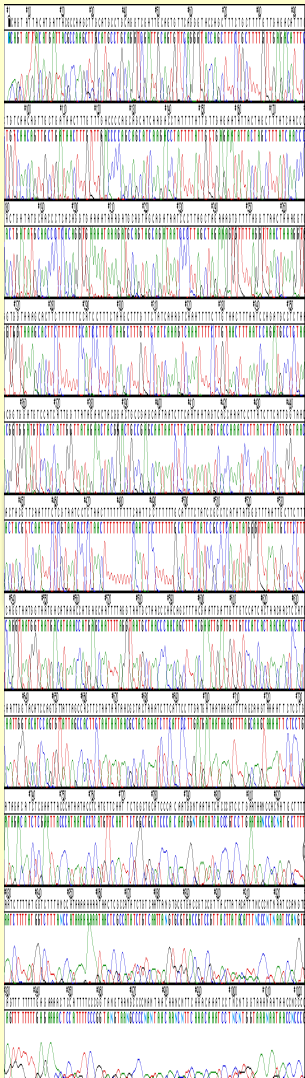
Photo by P.Schüle





Material and methods

342 cox1 sequences
+ GenBank
+ non published



GENEIOUS

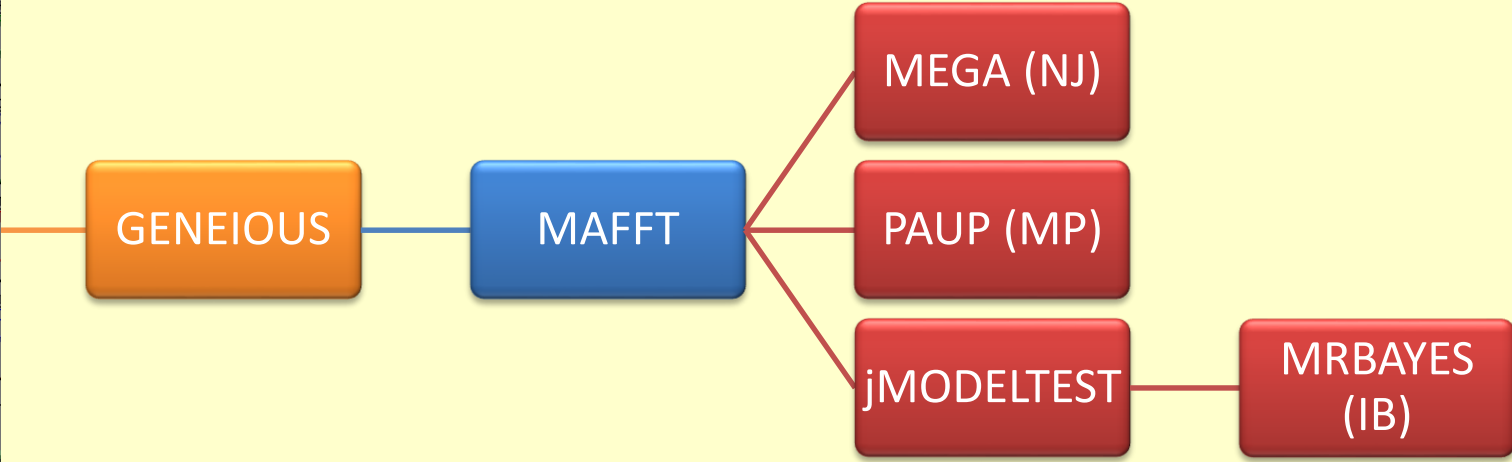
MAFFT

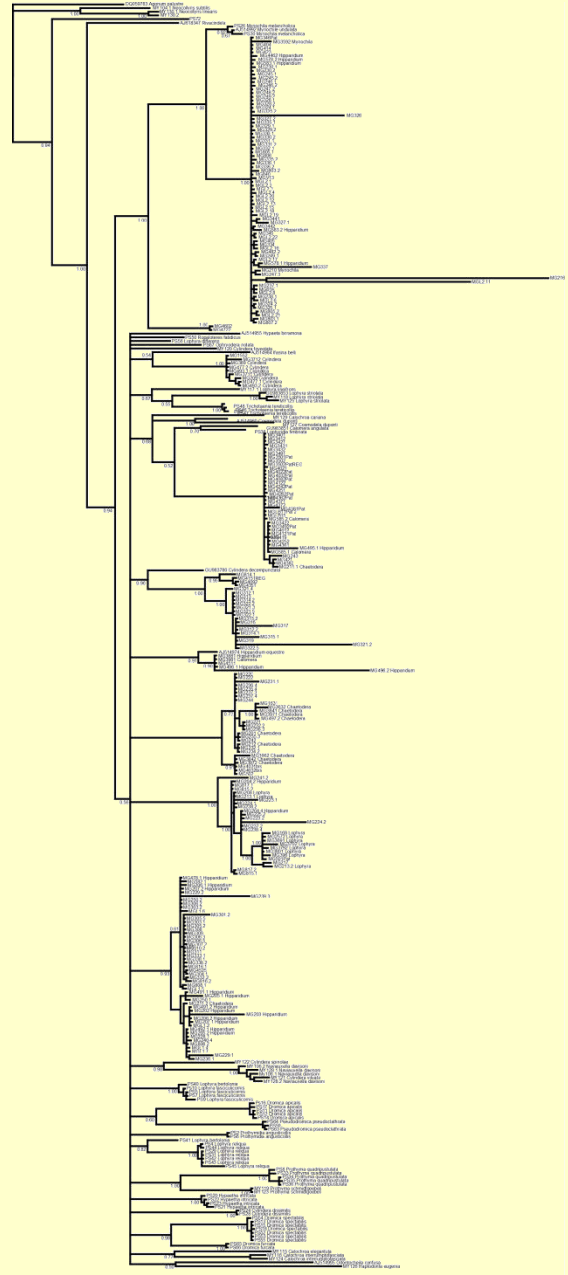
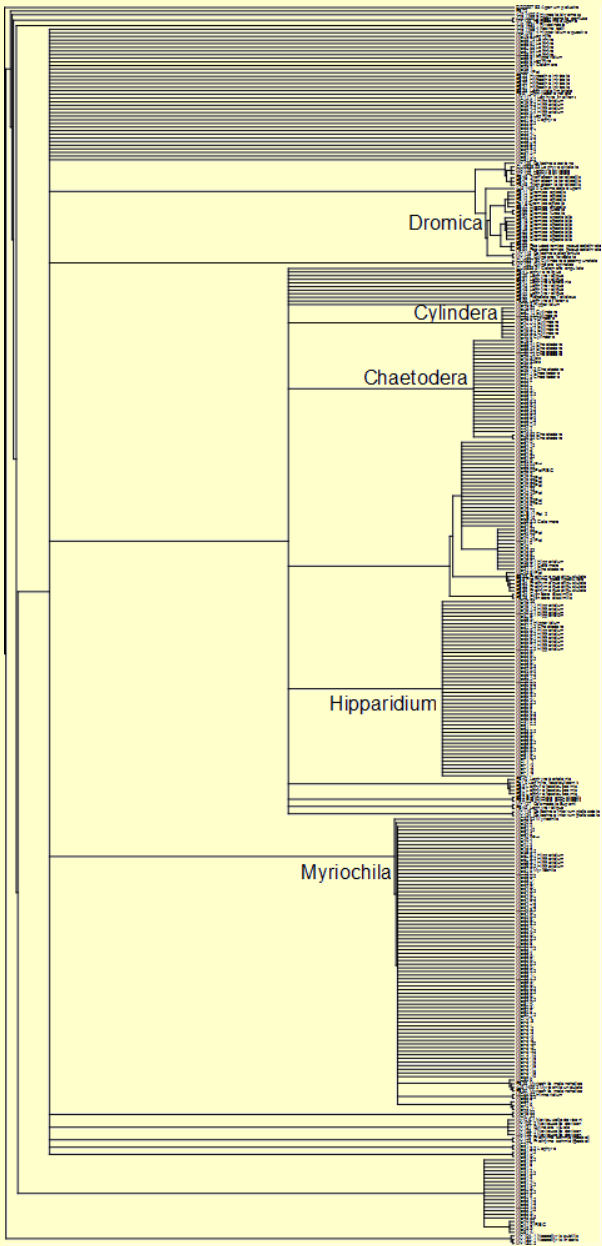
MEGA (NJ)

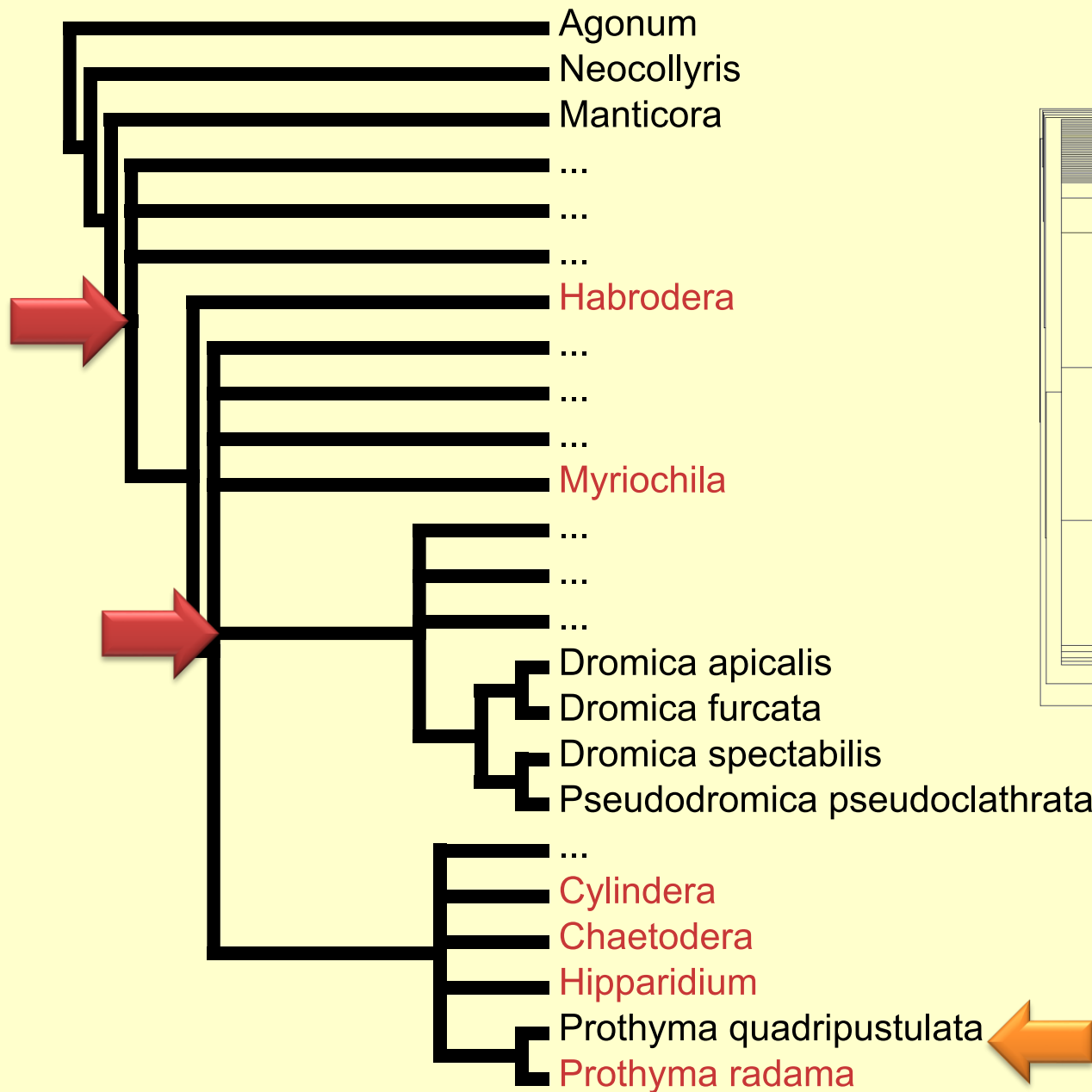
PAUP (MP)

jMODELTEST

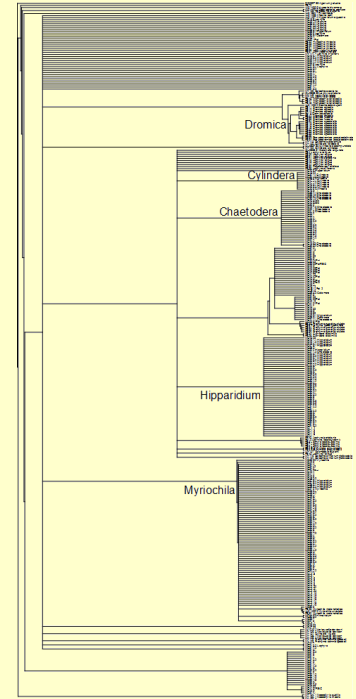
MRBAYES (IB)

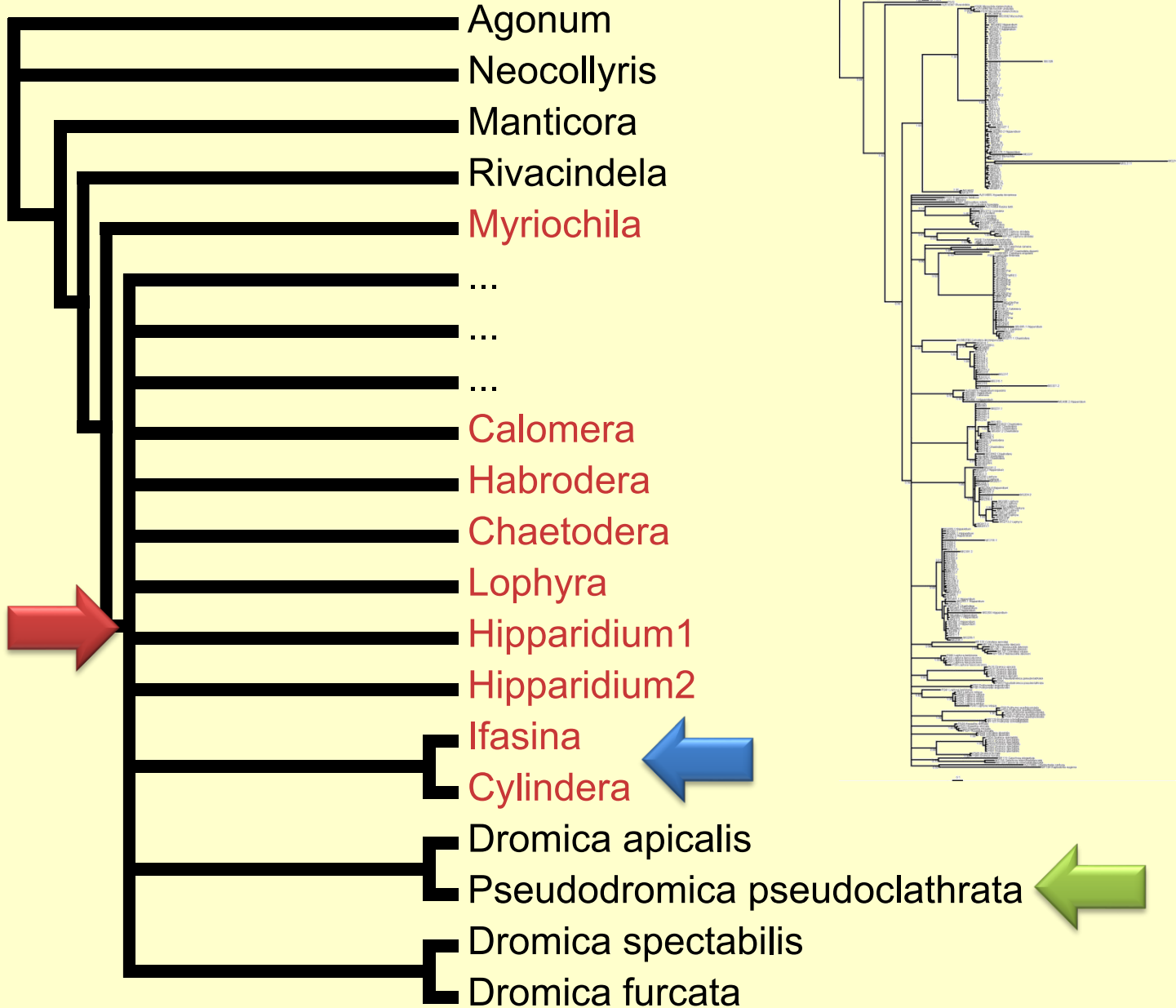






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What are we currently doing?

- Expanding the sampling
- Sequencing nuclear markers
- Dating the colonization events
- Phylogeography
- Cytogenetics



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Peter Schüle



