

*The center integrates terrestrial and marine research in a cross-disciplinary research program addressing fundamental questions on the origin, maintenance, conservation and future of biological diversity on Earth.*

## Research team

At the end of 2015, the CMEC team comprised 22 senior scientists, including four world leading scientists employed part-time (Miguel B. Araujo; Neil Burgess; Robert Whittaker; Rob Dunn) and one associated Professor (Gary Graves from Smithsonian Institutions).

The CMEC senior scientists worked in 2015 closely together with an exceptional cohort of 7 Assistant Professors, 19 postdoctoral scientists and 16 PhD students from around the world. Additionally 28 MSc and 5 BSc students graduated with supervision by CMEC researchers.

In 2015 senior and junior CMEC researchers have received awards and prominent grants, e.g. a 3.9 million DKK Young Investigator Programme research grant, individual postdoc grants and U.S. NSF Growth PhD stipends.



*The annual retreat was held in an old monastery near Zaragoza, Spain. All PhD students and postdocs, together with the center leader and senior scientists, participated in workshops and brainstorming about developing the research program of CMEC.*

## Research

During CMEC's sixth year an impressive 115 papers were published in international peer-reviewed journals, including 2 in *Nature*, 3 in *Science*, 4 in *PNAS*, and 3 in *Royal Proc. B* – the four “high prestige” journals targeted by the center for publication of the best of our work.



### Field expedition to Papua New Guinea

Between September and November 2015 researchers from CMEC led an ornithological field expedition to Mount Wilhelm, the highest mountain in Papua New Guinea. Many poorly known and as yet unsequenced taxa, such as the Leaden Honeyeater (*Ptiloprora plumbea*; pictured) were encountered. In total, 351 individuals of 79 species were collected for scientific study.

### Planetary boundaries crossed

CMEC researchers were involved in a study concluding that four of nine planetary boundaries – climate change, loss of biosphere integrity (~ biodiversity), land-system change and altered biogeochemical cycles (phosphorus and nitrogen) – have now been crossed as a result of human activity.

Two of these, climate change and biosphere integrity, are “core boundaries”. Significantly altering either of these “core boundaries” can “drive the Earth System into a new state.”

The study was published in *Science* and presented in seven seminars at the World Economic Forum in Davos (21-24 January).

