

## DNA BARCODING IN HYPER-DIVERSE MALAYSIA:

Over the past 50 years, Southeast Asia has suffered the greatest losses of biodiversity of any tropical region in the world. Located at the region's centre, Malaysia is a hyper-diverse country with a particularly acute taxonomic impediment.

DNA barcoding, the use of short standardized DNA sequences for species identification and discovery, offers great promise as a solution to overcome the challenges of biodiversity monitoring and documenting the incredible diversity of the region before it is potentially lost forever.

However, to put things in perspective, there are 4173 DNA barcode records on the Barcode of Life Database (BOLDsystems.org) from Malaysia compared to 623870 from temperate, and comparatively species-depauperate, Canada.

In order to promote DNA barcoding in Malaysia the University of Malaya hosted the father of the movement, Paul Herbert from the University of Guelph, Canada, as a Visiting Professor in October 2013. A public seminar by Prof. Hebert on the International Barcode of Life (ibol.org) was attended by more than 200 people representing numerous academic, government, NGO and research institutions from across the country.

The hugely oversubscribed "basics of DNA barcoding" laboratory workshop initiated 20 graduate students and young scientists in the simple molecular techniques required for biodiversity genomics research. A scientific meeting for professors, lecturers and government researchers was called to instigate the activation of Malaysia as an iBOL partner nation. In addition to the public events, discussions with the university's top management were very fruitful.

Details are being finalised for the creation of a high-throughput DNA barcoding centre and Malaysia Barcode of Life network spearheaded by University of Malaya, capable of leading the region towards heightened biodiversity consciousness. We look forward to becoming an iBOL member in the near future and working closely with our partners from across Southeast Asia and beyond.

**-Gary Sing & John J. Wilson**

A modified version of this article appears in the Barcode Bulletin: The Newsletter of the International Barcode of Life 4(2):16

*Right: The DNA barcoding workshop.  
Below: Participants of the workshop.  
Below Right: Prof. Herbert delivering his seminar.*



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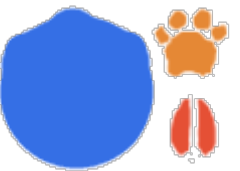


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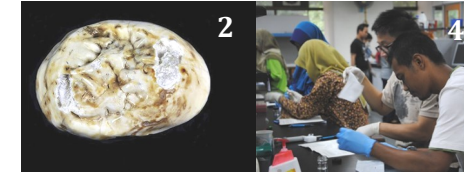


*Above and top right:  
Visitors at Petrosains.  
Right: Museum and  
Petrosains staff on training  
day at KLCC.*

# BULLETIN OF THE MUSEUM OF ZOOLOGY



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### EDITORIAL:

Museum Zoology UM has made good progress the last few months towards its three objectives, 1. Zoological research, 2. Education, and 3. Maintenance of the zoological collection.

Our research activities resulted in seven publications for 2013 (page 2) besides our posters and presentations. Two months into 2014, our biodiversity genomics group already has three papers accepted, as well as the same number in review - our research programs over the past couple of years are finally bearing fruits. Our latest projects involving bats, butterflies, and

many other animal groups are proceeding nicely.

The Exhibition Hall is seeing a continual increase in visitors, with recent visits by German International School, Iranian International School and Kelab Alami Mukim Tg Kupang. Besides this, we have taken our exhibits on the road - to Petrosains Centre, UM Researcher's Conference, UM Convocation Festival. Our biodiversity seminar series and training workshops continue to flourish (page 4).

The entomology staff continue to slowly add accession numbers to

our insect collection and digitize the catalogue. Beside this, I was fortunate to be able to temporarily hire a photographer to image our entire butterfly collection, some 3000 preserved butterflies. These beautiful photographs are steadily being uploaded to [malaysiabutterflies.myspecies.info](http://malaysiabutterflies.myspecies.info) so please check it out. The Peacock Pansy (*Junonia almana*, above) a common, but striking species, is well represented in our collection.

We look forward to welcoming you to Museum Zoology soon. Thanks for your support!

**-John J. Wilson** Assistant Curator

### PETROSAINS EXHIBITION:

We recently collaborated with Petrosains for their Nature's Kingdom Exhibition at Petrosains - The Discovery Centre, KLCC. Museum of Zoology lent its expertise in designing special animal exhibits, and training the staff at Petrosains about the basics of biodiversity in Malaysia.

As Petrosains is a popular tourist attraction that is regularly visited by school aged children, it was a great opportunity to expose the public to some lesser known Malaysian animals such as the Flying Lemur (*Galeopterus variegatus*), Leopard Cat (*Felis bengalensis*) and Mud Lobster (*Thalassina anomala*) from our specimen collection.

Working with Petrosains has been a fantastic experience. A lot of great ideas were exchanged and producing exhibits for Petrosains challenged us to make more interactive and accessible exhibits. The results of this learning experience will be seen in our own exhibition hall soon!

**-Thary Gazi**



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