

**Anurans (frogs and toads)      Mr Kelvin Kueh**  
**Thursday 24<sup>th</sup> February**

At last count, there were 6,798 species of amphibians world-wide. 90 of these are endemic to Borneo, 16% of which are endemic to Sabah. 83 species are to be found in Kinabalu Park and 68 species in The Crocker Range.



Kelvin at his former Frog Museum



Presentation of Certificate to Kelvin

The first explorations to identify and record their existence took place in 1887-1888 and then in 1928-1929 in the West Coast. Recent explorations in the East Coast areas found that there were 70 species in Tabin Wildlife Reserve, Lower Segama River, Kulamba Wildlife Reserve and Tawau Hills Park.

**Tabin** 26 species, 14 genera and 5 families. 3.8% are endemic.

Examples are: the Seep Frog, which is very well camouflaged and the female is much larger than the male; the Tree Hole Frog, endemic, which changes its call tones daily according to weather conditions; the Rough Guardian Frog which has a rather rough back and the male cares for the young; the Jade Tree Frog, near threatened, which has a translucent skin and visible turquoise bones; the File Eared Frog, 7 – 10 cms long, which has a saw edge bony ridge protecting the ears; the Saffron Bellied Frog which has yellow blotches which will make your finger yellow if you touch them; the Bornean Horned Frog, the only species with 3 derma projections.

**Lower Segama.** 15 species (2 of which are endemic) 10 genera and 3 families.

Examples are: the Bornean Narrow Mouth Frog, a primary forest specialist which is only 2-3 cms long; the Frilled Tree Frog, which has stripes on its legs and perches on lichen covered tree trunks.

**Kulamba Wildlife Reserve.** 9 species, 6 genera, 4 families. 2 endemics.

Example: Collett's Tree Frog which has a large hourglass mark on its back.

**Tawau Hills Park.** 64 species (31 endemic), 25 genera, 5 families.

Examples are: The Long Snouted Frog, first discovered here in 2007 (previously thought to be found only in Sarawak); The Long Fingered Slender Toad, near threatened, a good indicator of primary forest, has a long high trill; the Montane Litter Frog which has a large head with a white mouth and a white area round its eye, crawls rather than hops.

17 species are primary forest specialists, including the Smooth Guardian Frog which has a flat back and the male looks after the eggs and the babies; the Green Spotted Rock Frog which lives in fast flowing rivers and lifts and waves a back foot to attract a mate.

**Suggestions for future activities:** Mr Kueh suggested that exploration, study (of the zoopathology and phylogenetics) and recording continue and hopefully intensify in East Coast areas to augment the inventory and enrich the knowledge of the natural history of these creatures, some of which are very rare and many are poorly recorded. The involvement of local communities is strongly encouraged, as is the participation of young people, particularly in the setting up of a new Museum of Anurans.