A fruitful visit to fish larval laboratory in Taiwan

by Anna Situ

While working on the taxonomic composition of fish larvae in Cape d’Aguilar Marine Reserve, I found that there are scarce records, studies and literature on the diversity and abundance of fish larvae in Hong Kong, and no local fish larvae experts.

In September 2005, I visited Professor Chiu Tai-Sheng’s laboratory at National Taiwan University in Taipei to get training on fish larvae identification under his supervision.

Professor Chiu (Fig. 1) is in charge of the Economic Fish Laboratory in the Institute of Zoology under College of Life Science in National Taiwan University (http://zoology.lifescience.ntu.edu.tw/english/index.htm). His research focuses on the ecology of larval fishes and fisheries genetics. Being the first one to examine species composition and distribution of fish larvae in Taiwan, Professor Chiu has made extensive contributions to larval biology and ecology since the 1980s, including the establishment of a systematic collection of over 50,000 specimens, a database of the geographical distribution of all species around Taiwan, and publication on fish larvae of Taiwan (Chiu, 1999). Currently, his research team (1 post-doctoral fellow, 4 postgraduate students and 2 technicians) concentrates their work on using molecular techniques to investigate the population structure of mackerel, anchovy, ribbonfish and squids.

During my two-week visit, I was trained with techniques in larval identification and learned about the morphological features of different families and procedures of larval staining and illustration (Figs. 2 & 3). Larval staining clears the body tissues of fish and stains the vertebrae and fin rays with a series of chemicals; counts of the numbers of the two structures are often essential characters for identification to genus and species level. I learnt a lot from the rich experience of Professor Chiu’s laboratory and got good background knowledge for my project. After verification of my previous identification, I found over 40 families (out of about 100 families recorded in Hong Kong), and at least 84 species of fish larvae recorded in my eight-month samples from Cape d’Aguilar.

From the visit, I was impressed that the Taiwanese government has put much effort into marine resources research. At the National Taiwan University, I found many on-going projects on marine resources around Taiwan. There are three departments, namely: Institute of Zoology; Institute of Fishery Biology; and Institute of Oceanography that conduct research on a wide variety of habitats and taxa. They also offer a wide range of courses to undergraduate and
postgraduate students such as Ecology of Early Life Fish, Fish Diseases, and Ecology of Plankton. I believe that investment in such research and training are also needed in Hong Kong if the government intends to set up a long-term management plan for the sustainable use of local fisheries and other marine resources.

Besides a good experience in laboratory, I also had a great tour around Taipei's night markets! I would like to thank Dr. Sadovy for the funding, and Professor Chiu and all lab mates in his lab for their generosity in hosting my visit.

**Bibliography**


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**Birdbrains in Big Bird Race 2006**

by Tony Hung (ENS 2)

The Big Bird Race 2006 was held from 5 pm on Friday 3 March 2006 to 5 pm the following day. This year, our team - the Swire Birdbrains (Fig.1) was led by Dr. Billy Hau and our team members included Yu Yat Tung (ENS graduate), Tony Hung, Cindy Yuen, Vivian Fu, Vivian Lam, Hey Sung, Philip Yip and Gracie Liu (all ENS Year 2 students). The weather was perfect for birding - a cool, yet sunny, day.

We started at Tsim Bei Tsui, since Mai Po was closed this year due to the avian flu. We arrived at Tsim Bei Tsui earlier, at 3.30 pm, to check out the birds first. We started the race at 5 pm sharp and recorded a Grey Bushchat, which is new to all members except Tung and Billy. We were thrilled to have recorded 71 species in Tsim Bei Tsui and then continued with our “night journey”, searching for nocturnal birds such as owls and nightjars. We stayed up until 11 pm without wanting to go back, as the feeling was one-of-a-kind - everything was pitch black and silent until we saw two big “light bulbs” flashing at us, which turned out to be birds! It was definitely worth it despite our weariness. We saw the species, a Savannah Nightjar and a Barred Owlet, several times, raising our count to 73 species on the first day. Although we failed to hear the calls of a Collared Scops Owl we saw it on the morning of the second day. We stayed over at Dr. Hau’s place at Morrison Hall and got up at 5 am in the morning. We are immensely grateful to Dr. Hau, he got up earlier than the rest of us to prepare a scrumptious breakfast! The first stop was at the Peak at 6 am to listen for bird calls and then we went back to HKU where we saw our first bird of the day – the Brown Headed Thrush which we had seen every day for two weeks before the race. Then, we went to Tai Po Kau to look for forest birds. Birding at Tai Po Kau is always unpredictable and we were not so lucky this time - recording only 9 species in 2 hours! Undaunted by this setback, we then moved into full throttle at Lam Tsuen, Shek Kong, Long Valley, Nam Sang Wai, Kam Tin and Tam Kong Chau. We ended up with 138 species which ranked us 6th amongst the 11 competing teams. We were also lucky to have recorded some unique species that other teams did not record in the race like Brown Headed Thrush, Mew Gull, Eyebrow Thrush, Hainan Blue Flycatcher and Hume’s Leaf Warbler. Although Mai Po was closed this year, the winner had a total of 158 species which was more than last year’s number when Mai Po was one of the observation areas! We raised more than HK$22,000 this year and had tremendous support from 133 sponsors (second highest number of sponsors). A big thank you to all the sponsors and to Professor Dudgeon for sending pledge forms out to staff in HKU. We had lots of ups and