which *R. mathematica* belongs (Spradbery, 1991). As with all other species of *Ropalidia*, *R. mathematica* extracts the meconium (larvae faeces) at the end of the larval development, just before pupation, by creating a hole at the end of the cell, later plugged by the workers for pupation. The dominance hierarchy is not known for *R. mathematica*, but most probably the queen maintains her dominant status by active aggression and disturbing any attempt by other females to lay eggs. Pheromone control is not proven in most Polistine wasps.

Fig. 4. (left) Lateral view of a *Ropalidia mathematica* nest at initiation stage. No worker has yet emerged. Note the single pedicel and (right) frontal view of a *Ropalidia mathematica* nest. Note the large larvae at the top of the nest.

The particular food provision of *R. mathematica* is not known locally but it is assumed that this wasp preys on a variety of small caterpillars as a proteinaceous food source for the larvae. Carbohydrates are most certainly provided through plant nectars and sap and possibly honeydew from various Sternorrhyncha. The particular diet of adults is not known and in general this remains relatively unknown for most Vespidae (Hunt, 1991).

Although direct predation of nests of *R. mathematica* has not been observed locally, Polistine colonies often fall prey to larger Vespids particularly *Vespa tropica*, *V. ducalis* and *V. soror*.

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VERTEBRATES

Whatever happened to the humphead wrasse, *Cheilinus undulatus*, after its CITES Appendix II listing?

by Yvonne Sadovy

The Napoleon fish, or humphead wrasse (*So Mei* in Cantonese) (Fig. 1), was one of the first commercial fish species to be listed on a CITES (Convention on Trade in Endangered Species of Flora and Fauna) Appendix when delegates from more than 150 countries reached a consensus that it be included on Appendix II in October of 2004. Species are listed on Appendix II if they can be demonstrated to be currently or potentially at risk of extinction if current practices persist. Because of the heavy and largely unregulated international trade in live individuals of this species, for food, mainly into and through Hong Kong, this species was considered to be at risk. The CITES listing is a powerful and positive step in the direction of sustainable management because the Convention requires that exporting countries demonstrate that exports are sustainable. If they cannot demonstrate this, then the Convention enables sanctions on exports to be introduced, so there is strong incentive to comply. Both exporting and importing countries play a role in ensuring (through a permitting system) that trade is conducted sustainably, such that Hong Kong, on the receiving end, has a responsibility to closely monitor imports of this species.

Fig. 1. Napoleon fish in the wild. This spectacular creature is one of the largest of all reef fishes and can reach 2 m in length. Its populations are threatened by the live reef food fish

trade which mainly passes into and through Hong Kong. (Photo: P. L. Colin.)

The sustainable management of a large, uncommon, reef fish, like the humphead, is a challenge, given how little we know of the species, how poor the fishery and export data are in most countries, and how difficult the species is to study. One of the biggest problems with its fishery is the major focus on juveniles and small adults in trade (Fig. 2). These life history stages are ideal for restaurant demand.

Fig. 2. Most fish on retail sale are at or below the size of sexual maturation (35 – 50 cm TL) which means that the fishery on the humphead wrasse is largely one of juveniles. Photos show fish being grown out after wild capture. All are below 35 cm. This is one of the major problems with this fishery because it removes late stage juveniles and small adults from the wild before they have had a chance to reproduce and replenish fished populations. [From: Development of fisheries management tools for trade in humphead wrasse, *Cheilinus undulatus*, in compliance with Article IV of CITES. Final Report of CITES Project No. A-254 undertaken by the International Union for the Conservation of Nature and Natural Resources - World Conservation Union/Species Survival Commission (IUCN/SSC) Groupers & Wrasses Specialist Group.]

A major exporter of humpheads is Indonesia which supplies most of the fish we see in local markets. Following the 2004 Appendix listing, the Indonesian government agreed with CITES to work with the IUCN (World Conservation Union) Groupers & Wrasses Specialist Group (which I chair out of DEB) to develop a sustainable management plan for the species. CITES initially funded this work, with the United States government providing more recent support, and I have now spent a couple of years working with the Indonesian government, and others, towards developing a stock assessment for the wrasse that can be used by Indonesia when they introduce their export quota for 2007. Ultimately, the aim is to make the stock assessment format generic enough that any interested country can use it, plug in their own parameters (such as local fish densities and areas of high and low fishing pressure) and tailor a quota to their specific and national needs. Other activities have involved lots of consultations and workshops to make countries aware of the management challenges and provide options for compliance.

There is much to report on, but I will confine myself to just two of the major activities, underwater visual census (UVC) surveys in Indonesia and an international workshop in Hong Kong. Working with Dr. Pat Colin of the Coral Reef Research Foundation we have almost completed comprehensive UVC surveys in 6 areas of Indonesia (Bali and environs, Derawan area, Banda Is., Komodo and environs, NW Sulawesi and NW Papua). The purpose of the surveys were to (a) develop an underwater sampling protocol suitable for a large, wide-ranging and uncommon species (the standard 50 m transects are not the most practical approach for several reasons) and that is easy to do, and (b) collect information on natural fish densities in areas of high, low and medium fishing pressure. These data are for the stock assessment model and represent a baseline for future work.

For the workshop, we were interested in providing background information on the species and in working towards a regionally acceptable approach to its management. Most countries have never had to work on endangered commercial fish species before and several do not even have the correct institutional framework for so doing. The international workshop (Fig. 3) was a first step in providing the necessary information and discussing management options and was extremely well received by participating country (Indonesia, Malaysia, Philippines, Papua New Guinea, Mainland China and Hong Kong) CITES authorities and fisheries personnel.

Fig. 3. Workshop participants from all over SE Asia and a few beyond, including from FAO and the CITES Secretariat.

Mapping (Fig. 4) using a global positioning system (GPS) allows easy return to sites for follow-up monitoring and is a challenge to do successfully for such a large species and using a simple practical and readily repeatable technique. The length of the GPS track, together with an estimated swathe width, enables area surveyed and fish densities to be estimated. In the different areas visited to date (Banda and Derawan remain to be completed) fish densities ranged from lows of < 0.01 to about 1 per 10,000 m^2. In very low-density areas, we had to cover at least 20 km to ensure a representative sample; for higher densities at least 6 km.

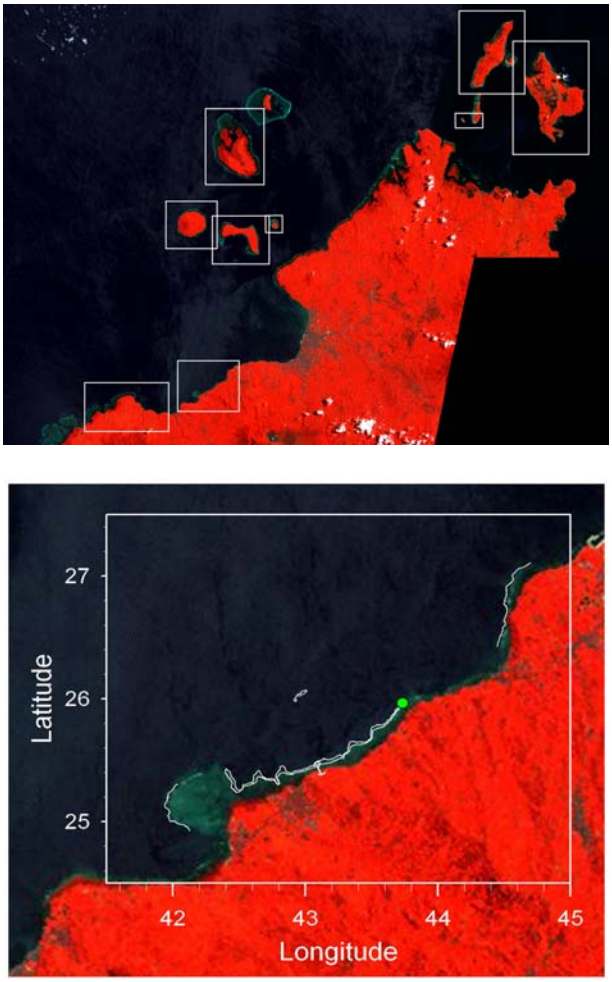

Fig. 4. The two photos show satellite shots of NW Sulawesi with the sample sites shown in boxes (upper). The lower photo is a detail of one of the more southern sites, showing the GPS track swum (mainly by snorkel) as a white wavy line. The dot indicates the one fish seen at this location.

Highlights of this work have been the challenge of developing a stock assessment model, the new UVC technique and the workshops. We have held both internal ones in Hong Kong and Indonesia as well as an international one for the SE Asian region. It has also been a pleasure to work with TRAFFIC Southeast Asia on a trade component and with FAO (Food and Agriculture Organization of the United Nations) on the fishery modelling work (stock assessment). Colleagues in Indonesia have given the work tremendous support and this diverse project has also enabled me to work with WWF here in Hong Kong, and with William Cheung, ex of DEB and now at the University of British Columbia.

Currently, only Indonesia is trying to comply with the CITES listing, with an interim export quota for 2006 of 8,000 animals 10 times less than before the CITES listing. Several countries, like Fiji and Palau, have banned exports altogether and the Philippines also does not allow exports (although fish continue to enter HK from the Philippines). Malaysia is discussing measures and, although Hong Kong has still not complied on the monitoring side, they have assured everybody that this will happen by the end of 2006 and that additional, even stricter legislation is in the final stages of approval. The hope is that within a few years, we may begin to see some progress and that follow-up surveys at our baseline monitoring sites will allow for effective evaluation of measures being discussed or put in place now. For more information on the humphead wrasse and access to reports on the above work see: www.humpheadwrasse.info.

Baseline study at Mabian Dafengding Nature Reserve, Sichuan

by Fion Cheung

With sponsorship provided by the Ocean Park Conservation Fund Hong Kong (OPCFHK), Tony Hung (ENS Year 2) and I had the chance to join a group of researchers and postgraduate students from Sichuan University to conduct a baseline study at Mabian Dafengding Nature Reserve, Southern Sichuan from 4 to 14 December, 2005. Since Tony and I are interested in bird watching, we followed an ornithologist, Mr. Zheng Zhirong, to conduct the bird survey while other surveyors conducted plant and mammal surveys. In our 4-day survey, we spent about 8 hours a day doing transect counts along planned routes in different areas including climbing up hills to reach pristine places in the nature reserve. Any bird species observed were recorded together with the time and location by using a Global Positioning System Unit. A total of 27 bird species (Table 1) was recorded. These included two protected species of Sichuan Province, the Greater Yellownape (*Picus flavinucha*) and the Red-headed Trogon (*Harpactes erythrocephalus*); both were also new records in Dafengding Nature Reserve. For me, every bird species we came across was really amazing because most of them (21 species) were my first records! Through conversations with Mr. Zheng, I also learned about the interesting distribution patterns of birds and methods for distinguishing bird species with similar appearance.

During this trip, we learned that the building of hydropower stations (Fig. 1) and mining operations (Fig. 2) are two of the main threats (in addtion to illegal collection of bamboo shoots, logging and hunting) that the nature reserve is now facing. The former inevitably destroys natural streams and the electricity generated does not even benefit the local communities. Mining explosions were heard almost non-stop throughout the days during our survey which was on top of a 2000 m mountain. The scenes of birds flushed by the explosions really made us sad. These mining activities do not just result in serious habitat destruction and soil erosion but also heavy traffic jams in the area as the over-loaded mining trucks often broke down on the narrow nature reserve road. One night when we were on the way back to the city, which is just 40 km away from the nature reserve, we were trapped in the bus for 19 hours because of several traffic congestions!

Fig. 1. A natural stream (left) and a hydropower station (right) in Shaqiang Nature Reserve Station.

Table 1. Bird species recorded in a 4-day survey at Dafengding Nature Reserve. Common and *species* names follow MacKinnon *et al.* (2000). *A field guide to the birds of China*. Oxford University Press, 517pp.

No.	Common name	Species name
1	Black-browed Tit	*Aegithalos bonvaloti*
2	Black-faced Laughingthrush	*Garrulax affinis*
3	Blue-fronted Redstart	*Phoenicurus frontalis*
4	Brown Dipper	*Cinclus pallasii*
5	Chestnut Thrush	*Turdus rubrocanus*
6	Chestnut-crowned Laughingthrush	*Garrulax erythrocephalus*
7	Crimson-breasted Woodpecker	*Dendrocopos cathpharius*
8	Eurasian Jay	*Garrulus glandarius*
9	Golden-breasted Fulvetta	*Alcippe chrysotis*
10	Greater Yellownape	*Picus flavinucha*
11	Green-backed Tit	*Parus monticolus*
12	Grey-cheeked Fulvetta	*Alcippe morrisonia*
13	Grey-headed Bullfinch	*Pyrrhula erythaca*
14	Grey-headed Woodpecker	*Picus canus*
15	Little Forktail	*Enicurus scouleri*
16	Orange-flanked Bush Robin	*Tarsiger cyanurus*
17	Plumbeous Water Redstart	*Rhyacornis fuliginosus*
18	Red-billed Blue Magpie	*Urocissa erythrorhyncha*
19	Red-headed Trogon	*Harpactes erythrocephalus*
20	Red-winged Laughingthrush	*Garrulax formosus*
21	Rufous-capped Babbler	*Stachyris ruficeps*
22	Streak-breasted Scimitar Babbler	*Pomatorhinus ruficollis*
23	Vinaceous Rosefinch	*Carpodacus vinaceus*
24	White-capped Water Redstart	*Chaimarrornis leucocephalus*
25	Winter Wren	*Troglodytes troglodytes*
26	Yellow-bellied Tit	*Parus venustulus*
27	Yellow-throated Bunting	*Emberiza elegans*

The conflict between development and environmental protection is very apparent at Dafengding. I think it is critical is to find a balance between them. Development is, of course, needed especially in developing countries but one should also bear in mind that the destroyed environment can probably never revert back to its original state. With more and more people better educated in Mainland China, I sincerely hope that people will be prepared to stand up and ask for better conservation policies such as enforcing environment impact assessments (EIA), especially in provinces with rich biodiversity such as Sichuan and Yunnan.

Fig. 2. Mining activities causing serious soil erosion.

I would like to express my sincere gratitude to OPCFHK and DEB for organizing this valuable trip giving us the opportunity to see what is actually happening outside Hong Kong with our own eyes. I still remember the conversation I had with experts in Dafengding. I asked whether they felt frustrated and were pessimistic about the future as their study area was being destroyed even though they had collected data showing its ecological importance. They said, “Yes, of course. But at least we have tried our best to protect this place. Keeping the frustration and doing nothing cannot help the situation. So, no matter how little we can achieve, we will keep on doing our work.” I just wish to share this comment with all colleagues in the conservation field.

A survey of reef fish diversity in Port Shelter

by Ken Ching[1], Anna Situ and Allen To

[1]Environmental Education & Resources Centre

Despite a lot of published and unpublished studies of fish fauna in local waters (Leung, 1994; ERM, 1998; Cornish, 1999; Ni & Kwok 1999; Sadovy & Cornish, 2000), few have documented the fish diversity in Sai Kung waters. With the proposed Fisheries Protection Area in Port Shelter likely to be in place in the near future (AFCD 2004), studies on fish diversity within Port Shelter would provide valuable baseline information for subsequent conservation, management and education purposes.

Monthly underwater visual censuses commenced in early 2006. Surveys were conducted at six sites within Port Shelter, namely Sharp Island, Shelter Island, Kau Sai Chau, Jin Island, Bluff Island and Trio Island. Surveys were concentrated along patches of coral communities and adjacent sandy and rocky areas. Transects were laid along shallow communities with relatively high coral coverage. Divers or snorkellers swam along two 50 m belt transects, with a belt width of 2.5 m on both sides. Fish encountered within the belt transect were recorded (Table 1), to species level if possible, and photographs taken of most species for subsequent verification.

A large proportion of the species recorded is made up of relatively widely distributed and abundant species in Hong Kong waters (Fig. 1). However, a few relatively rare species worth notice are spotted knifejaw darkfin hind (Fig. 2) (*Cephalopholis urodeta*), and one of few local records of axilspot hogfish (Fig. 3) (*Bodianus axillaris*) and snowflake moray (Fig. 4) (*Echidna nebulosa*). Surveys will continue till October 2006.

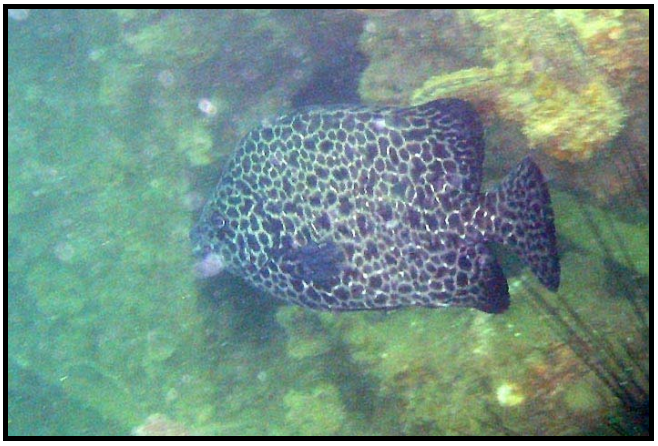

Fig 1. Spotted knifejaw, *Oplegnathus punctatus* (Photo: Ken Ching).

Fig 2. Darkfin hind, *Cephalopholis urodeta*. (Photo: Ken Ching)

Fig 3. Axilspot hogfish, *Bodianus axilliaris*. (Photo: Ken Ching)

Fig 4. Snowflake moray, *Echidna nebulosa* (Photo: Ken Ching)

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Table 1. A total of 106 fish species recorded in the surveys.

Family	Species
Gymnuridae	*Gymnura* sp.
Muraenidae	*Gymnothorax reevesii*
	Echidna nebulosa
Mugilidae	*Mugil cephalus*
Belonidae	*Tylosurus crocodilus crocodilus*
Syngnathidae	*Hippocampus kuda*
Fistulariidae	*Fistularia commersonii*
Scorpaenidae	*Paracentropogon longispinus*
	Pterois volitans
	Scorpaenopsis cirrhosa
	Scorpaenopsis diabolus
	Sebastiscus marmoratus
Dactylopteridae	*Dactyloptena orientalis*
Platycephalidae	*Ratabulus megacephalus*
Serranidae	*Cephalopholis boenak*
	Cephalopholis urodeta
	Epinephelus merra
	Epinephelus quoyanus
	Epinephelus trimaculatus
	Plectropomus leopardus
	Diploprion bifasciatum
Apogonidae	*Apogon doederleini*
	Apogon fasciatus
	Apogon fleurieu
	Apogon niger
	Apogon pseudotaeniatus
	Cheilodipterus artus
Sillaginidae	*Sillago maculata*
Echeneidae	*Echeneis naucrates*
Carangidae	*Selaroides leptolepis*
	Trachinotus blochii
Leiognathidae	*Leiognathus brevirostris*
Gerreidae	*Gerres macrosoma*
Lutjanidae	*Lutjanus argentimaculatus*
	Lutjanus russellii
	Lutjanus stellatus
	Pterocaesio tile
Haemulidae	*Diagramma pictum*
	Plectorhinchus cinctus
Sparidae	*Acanthopagrus latus*
	Acanthopagrus schlegeli
	Pagrus major
	Erynnis cardinalis
Lethrinidae	*Lethrinus nebulosus*
Nemipteridae	*Scolopsis vosmeri*
Mullidae	*Parupeneus biaculeatus*
	Parupeneus multifasciatus
	Parupeneus indicus
	Upeneus tragula
Pempheridae	*Pempheris ovalensis*
Pinguipedidae	*Parapercis snyderi*
Monodactylidae	*Monodactylus argenteus*
Cheilodactylidae	*Cheilodactylus zonatus*
Chaetodontidae	*Chaetodon auriga*
	Chaetodon auripes
	Chaetodon melannotus
	Chaetodon octofasciatus
	Chaetodon speculum
	Chaetodon wiebeli
	Heniochus acuminatus
Kyphosidae	*Girella melanichthys*
	Microcanthus strigatus
Oplegnathidae	*Oplegnathus punctatus*
Pomacentridae	*Abudefduf bengalensis*
	Abudefdus sexfasciatus
	Abudefduf sordidus
	Abudefduf vaigiensis
	Amphiprion clarkii
	Chromis notata
	Dascyllus reticulatus
	Neopomacantrus bankieri
	Neopomacentrus cyanomos
	Stegastes fasciolatus
Labridae	*Halichoeres tenuispinis*
	Halichoeres nebulosus
	Labroides dimidiatus
	Pteragogus enneacanthus
	Stethojulis interrupta
	Thalassoma lunare
	Bodianus axillaris
Scaridae	*Scarus ghobban*
Blenniidae	*Cirripectes filamentosus*
	Entomacrodus stellifer lighti
Tripterygiidae	*Enneapterygius etheostomus*
Callionymidae	*Dactylopus dactylopus*
Gobiidae	*Amblyeleotris gymnocephala*
	Amblygobius phalaena
	Cryptocentrus leptocephalus
	Cryptocentrus strigilliceps
	Cryptocentrus sp.
	Istigobius diadema
Ptereleotridae	*Ptereleotris hanae*
	Ptereleotris microlepis
Acanthuridae	*Acanthurus dussumieri*
	Acanthurus olivaceus

Family	Species
Zanclidae	*Zanclus cornutus*
Siganidae	*Siganus canaliculatus*
Sphyraenidae	*Sphyraena barracuda*
	Sphyraena sp.
Monacanthidae	*Monacanthius chinensis*
	Cantherhines pardalis
Ostraciidae	*Ostracion cubicus*
	Ostracion immaculatus
Tetraodontidae	*Arothron hispidus*
	Chelonodon patoca
	Takifugu alboplumbeus

Night safaris in Lung Fu Shan Country Park, Hong Kong

by Sung Yik Hei (ENS 2)

A group of Environmental Life Science students had three 1-night safaris in early October 2005 and late May 2006 to look for amphibians and reptiles in Lung Fu Shan Country Park just behind the HKU campus. Several different streams along the jogging trail running from HKU to Queen's Mary Hospital were visited. A total of 7 amphibians and 5 reptiles were recorded, including the locally protected Hong Kong Cascade Frog *Amolops hongkongensis* (Fig. 1) (Chan *et al*., 2005). Finding the Hong Kong Cascade Frogs in the tiny little streams in Lung Fu Shan near the campus was particularly exciting. Seeing the locally rare Short-legged Toad *Xenophrys brachykolos* (Fig. 2) in all three visits was also unexpected (Karsen *et al*. 1998). A bamboo snake was spotted (Fig. 3).

Fig.1. Hong Kong Cascade Frog *Amolops hongkongensis* at Lung Fu Shan

Fig. 2. Short-legged Toad *Xenophrys brachykolos*

Fig. 3. Bamboo snake (*Trimeresurus albolabris*)

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Table 1. Species recorded in the night safaris.

Species (Y=present)	Lung Fu Shan (6 Oct 05)	Lung Fu Shan (10 Oct 05)	Lung Fu Shan (30 May 06)
Xenophrys brachykolos	Y	Y	Tadpoles only
Paa exilispinosa	Y	Y	Y
Amolops hongkongensis	Y	Y	Y
Rana livida	Y	Y	Y
Bufo melanostictus		Y	Y
Kaloula pulchra		Y	
Polyedates megacephalus		Y	
Gekko chinensis	Y	Y	Y
Hemidactylus sp.		Y	
Opisthotropis andersonii	Y		
Tropidophorus sinicus		Y	
Trimeresurus albolabris			Y

"Man of the forest" – a visit to the Sepilok Orangutan Rehabilitation Centre

by Lily Ng

The Orangutan (*Pongo pygmaeus*) occurs in Asia. It is the only great ape in Asia and is found only in tropical rain forests in northern Sumatra, Indonesia and Borneo. The Sepilok Orangutan Rehabilitation Centre is located in Sabah, North Borneo, at a site of 43 km^2 of protected land at the edge of Kabili Sepilok Forest Reserve. It is the largest rehabilitation centre in the world for housing injured or orphaned Orangutans, providing medical care and teaching them how to survive before they are returned to the wild. Since many young Orangutans are victims of the illegal pet trade, they lose their climbing ability while they are in captivity. It usually takes several years of training before they are capable of living in the wild.

Orangutans share 94.6% of their genes with human beings. It is our third closest relative after chimpanzees and gorillas. They are the largest of all tree-dwelling mammals and can grow to 1.5 m tall and 90 kg in weight. They are vegetarians. It is interesting that they make up their fresh nests in the crown of the tree every night for sleeping (Fig. 1).

Fig.1. Fresh nests are made in the crown of tree every night (Photo: Lily Ng).

Each day, the centre provides two feeding times, at 10 am & 3 pm. If you want to catch the morning session, you have to take a domestic flight at 7 am from Kota Kinabalu, since there is no direct flight from Hong Kong, or you could stay at the centre the night before. There are several feeding platforms, but only platform A is open to visitors (Fig. 2). Milk & bananas are provided, but the food supply is reduced on other platforms deeper into the forest in order to encourage the animals to find food for themselves. I was glad to see so many Orangutans free in the wild, rather than in cages. Touching the animals is prohibited, but be sure to give them a smile. After visiting them at platform A, remember to stay in the centre to watch a video called "Man of the forest" to learn more about the work of the centre.

In Malay, Orangutan means "Man of the forest". The centre also includes public education on conservation and research with other endangered species, such as captive breeding of the rare and endangered Sumatran Rhinoceros. It has stimulated greater local and international awareness of the protective laws for endangered species. Since Orangutans are now listed as critically endangered species, we need to do something to avoid their extinction in the wild. The work of the centre is an important contribution to their conservation.

Fig.2. Milk & bananas are provided in platform A two times a day (Photo: Lily Ng).

Finless porpoises in Wuhan, China

by Milla Fok and Tracy Pang

In the internship programme organized by the Ocean Park Conservation Foundation Hong Kong (OPCFHK) and the Swire Institute of Marine Science (SWIMS), we worked on a conservation project on two endemic cetaceans, the Yangtze Finless Porpoise (*Neophocaena phocaenoides asiaeorientalis*) (Fig. 1) and the Baiji (*Lipotes vexillifer*) (Fig. 2), in the Yangtze River and Poyang Lake with the Institute of Hydrobiology (IHB) of The Chinese Academy of Sciences in China.

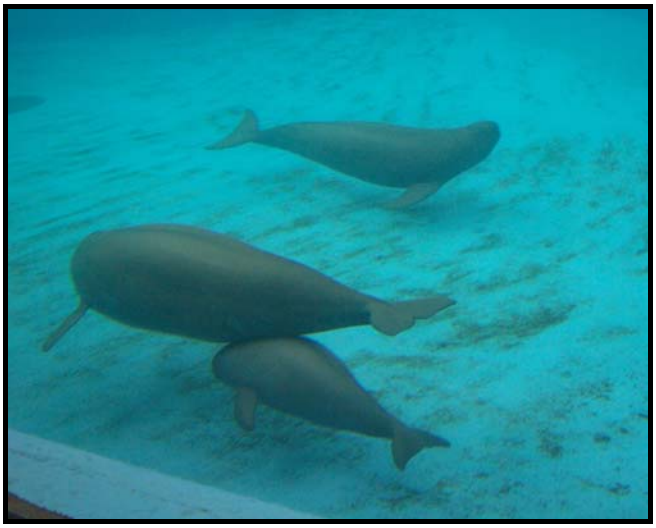

Fig. 1. The Yangtze Finless Porpoise (*Neophocaena phocaenoides asiaeorientalis*)

Fig. 2. The Baiji (*Lipotes vexillifer*)

The Yangtze Finless Porpoise and the Baiji are freshwater cetaceans which inhabit the main stream of the middle and lower reaches of Yangtze River. They used to be widely distributed in Dongting and Poyang Lakes. Unfortunately, with the rapid growth in fisheries boat, traffic and the dredging industry, their populations decreased rapidly. Recent surveys could not locate any Baiji, and it was estimated that only about two to three hundred porpoises still inhabit Poyang Lake.

To evaluate the impacts of human activities on the cetacean's survival, visual and acoustic studies on their populations and daily movements are crucial for effective conservation measures in the future.

We took part in a five-day vessel-based daytime survey (17 to 21 November 2005) in the outlet of Poyang Lake and the adjacent area connecting the Yangtze River (Fig. 3 & 4). During zig-zag line transects and fixed-point surveys, the number and size of each group of porpoises, their distance from our boats and time of the day were recorded. In total, over 200 porpoises, but not one Baiji, were sighted. Acoustic data-loggers were also lowered into the river to record the ultrasonic signals emitted by porpoises. By comparing visual observations and acoustic data, a correlation is hopefully to be developed for future estimation of the numbers of cetaceans during night-time acoustic surveys

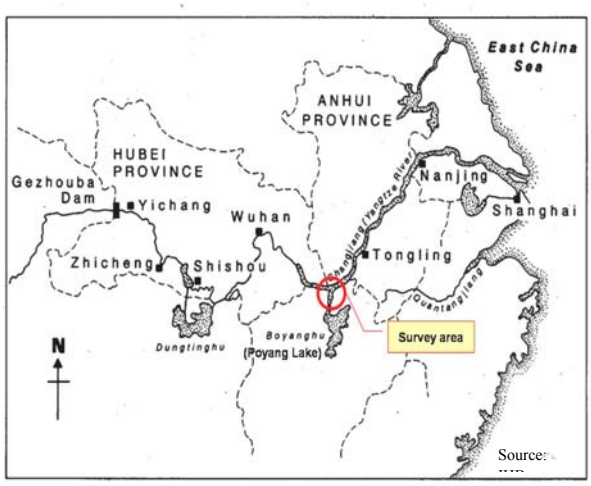

Fig. 3. Survey area encircled

Fig. 4. Survey boat

The major reason for the rapid reduction in the cetacean populations is thought to be habitat destruction. Before our trip, we had no idea about how much the sand-dredging activities were deteriorating the porpoise's habitat. Hundreds of huge barges and dredgers were seen during our short stay in Poyang Lake (Fig. 5, 6 & 7). Dredging activities have been so prevalent in Poyang Lake in recent years with the increasing demand for sand from coastal developing regions like Shanghai. In addition to the serious pollution problem, propellers of the barges do, occasionally, hurt or even kill the cetaceans by cutting into their bodies.

Fig. 5. A dredger

Fig. 6. Barges marching towards Poyang Lake

Fig. 7. Two similar barges with (left) and without (right) a full load of sands.

Recent studies indicated that there may be no interaction between the populations in the Lake and the River. This may be attributable to the infrastructure and other construction work at the mouth of the Poyang Lake (Fig. 8), making porpoise populations from either side of the bridges unwilling to pass them, especially during dry season when the river is narrower. This isolation effect could intensify the hardships experienced by the already depressed populations.

Fig. 8 Poyang Lake bridge and another bridge under construction nearby

We also visited the Baiji Dophinarium, the headquarters for captive breeding and research on the Baiji and Finless Porpoise. There are 5 porpoises, including one calf, living in the captive pools (Fig. 9). The calf is about a meter long. Its birth in July overwhelmed the world and is a breakthrough toward successful captive breeding techniques of Yangtze Finless Porpoise. With growing concern over declining populations of Yangtze Finless Porpoise in the Yangtze River, Poyang Lake and Dongting Lake, release of captive individuals may, hopefully, be able to save the declining population from extinction.

Fig. 9. Captive freshwater finless porpoise in Baiji Dophinarium

The Wuhan Baiji Conservation Foundation was launched in 1996, aimed at sourcing financial support and raising awareness amongst the general public towards the conservation of the mammals. Two national Baiji reserves, one semi-natural, protection stations and provincial reserves

have been set up to house Baiji and Finless Porpoise and provide a disturbance-free habitat for them to reproduce.

We would like to express our gratitude to the OPCFHK and SWIMS for their support of such a meaningful programme. Special thanks to Dr. Kexiong Wang and Mr. Zhuo Wei from IHB for their patience and guidance during our internship; their passion in conserving these lovely creatures has really impressed us.

The bird fauna of Lung Fu Shan and the University of Hong Kong

by Hung Tun Hei, Sung Yik Hei, Fu Wing Kan, Yuen Pui Yu
Environmental Life Science 2004-2007

Lung Fu Shan Country Park is the latest designated Country Park in Hong Kong and is situated right behind our university. Lung Fu Shan is almost entirely covered by secondary forest and exotic tree plantation (AFCD, 2006). Whilst many fellow students visited this area while bird watching for the course 'Ecology of Hong Kong' last year, we are some of the ENS students who are particularly keen on bird watching and have returned to Lung Fu Shan regularly in our spare time. In the past year, we found that Lung Fu Shan is indeed a bird paradise. Over the last winter, we recorded rare and uncommon species such as Mugimaki Flycatcher (*Ficedula mugimaki*), Black-winged Cuckoo-shrike (*Coracina metaschistos*), Asian Stubtail Warbler (*Urosphena squameiceps*) and Streak-breasted Scimitar Babbler (*Pomatorhinus rufucollis*). On 14 February 2006, Allen To discovered the rare Brown-headed Thrush (*Turdus chrysolaus*) along the little path right next to the University Drive. Since then, this little path and the surrounding area have become our favourite birding sites with more than 7 thrush species seen. On 23 March 2006, Fu and Sung recorded a rare Ferruginous Flycatcher *(Muscicapa ferruginea*), the first record at Lung Fu Shan (Fig. 1). Furthermore, Hung, Fu and Chloe Ng saw a Grey-crowned Warbler (*Seicercus tephrocaphalus*) at Lung Fu Shan on 31 March 2006. If this record is accepted by the Hong Kong Bird Watching Society, it will be the second record of this species in Hong Kong.

In addition to the bird records we have made since last year, we have reviewed the literature and compiled a bird list of Lung Fu Shan and HKU (Table 1). A total of 90 species have been recorded so far. These include some locally rare and uncommon species such as the Blacked-winged Cuckoo-shrike, Eurasian Hooby, Grey Treepie, Plumbeous Redstart, Ferruginous Flycatcher and Brown-headed Thrush (Fig. 2). According to AFCD (2006) there are more than 150 bird species in Lung Fu Shan, although there was no detailed species list in the AFCD report. Useful references are Lock (2000) and So (1996, 2000).

Fig.1. Ferruginous Flycatcher (Photo: Billy Hau)

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Fig.2. Brown-headed Thrush (Photo: Allen To)

Table 1. Birds recorded at Lung Fu Shan. Unless specified, the records were made by the authors and other Environmental Life Science students. The status column refers to the status of the species in Hong Kong according to Viney *et al*. (2006).

English name	Species name	Month seen	Status	Source
Schrenck's Bittern	*Ixobrychus eurhythmus*	Spring 2000		Samson So
Cinnamon Bittern	*Ixobrychus cinnamomeus*	Spring 2000		Samson So
Black Kite	*Milvus migrans*	Year round	Very common	
White-bellied Sea Eagle	*Haliaeetus leucogaster*	Sept	Uncommon	So, 1996
Crested Goshawk	*Accipiter trivirgatus*	Year round	Common	
Buzzard	*Buteo buteo*	Oct - Nov	Common	
Eurasian Hooby	*Falco subbuteo*	Sept	Uncommon	So, 1996
Woodcock	*Scolopax rusticola*	Nov	Uncommon	So, 1996
Feral Pigeon	*Columba livia*	Year round	Very common	
Spotted Dove	*Streptopelia chinensis*	Year round	Very common	
Emerald Dove	*Chalcophaps indica*		1999	Samson So
Yellow Crested Cockotoo	*Cacatua sulphurea*	Year round	Very common	
Chestnut wing Cuckoo	*Clamator coromandus*			Samson So
Large Hawk Cuckoo	*Hierococcyx sparverioides*			Samson So
Koel	*Eudynamis scolopacea*	Year round	Common	
Greater Coucal	*Centropus sinensis*	Sept - Nov	Common	So,1996; Lock, 2000
Collared Scops Owl	*Otus bakkamoena*	2006		Samson So
Pacific Swift	*Apus pacificus*	Sept	Common	So, 1996
House Swift	*Apus nipalensis*	Year round	Common	
Common Kingfisher	*Alcedo atthis*	Oct	Common	So, 1996
Dollarbird	*Eurystomus orientalis*	Sept	Uncommon	So, 1996
Barn Swallow	*Hirundo rustica*	Sept - Nov	Common	Lock, 2000
Forest Wagtail	*Dendronanthus indicus*	Sept	Uncommon	So, 1996
Grey Wagtail	*Motacilta cinerea*	Sept	Common	So, 1996
White wagtail	*Motacila alba leucopsis*	Sept	Common	
Olive-backed Pipit	*Anthus hodgsoni*	Nov - Mar	Common	
Black-winged Cuckoo-shrike	*Coracina metaschistos*	Sept - Feb	Uncommon	
Scarlet Minivet	*Pericrocothus flammeus*	Nov	Common	
Red-whiskered Bulbul	*Pycnonotus jocosus*	Year round	Very common	
Chinese Bulbul	*Pycnonotus sinensis*	Year round	Very common	
Orange-bellied Leafbird	*Chloropsis hardwickii*	Nil	Uncommon	So, 1996
Rufous-tailed Robin	*Luscinia sibilans*	Nov - Mar	Uncommon	
Red-flanked Bluetai	*Tarsiger cyanurus*	Nov - Feb	Common	
Oriental Magpie Robin	*Copsychzrs saularis*	Year round	Very common	
Daurian Redstart	*Phoenicurus auroreus*	Sept - Nov	Common	Lock; 2000
Plumbeous Redstart	*Rhyacomis fuliginosus*	Nil		Samson
Grey Bushchat	*Saxicola ferrea*	1998		Samson So
Blue Whistling Thrush	*Myiophoneus caeruleus*	Year round	Common	
Scaly Thrush	*Zoothera dauma*	Sept - Nov	Uncommon	So, 1996, 2001
Japanese Thrush	*Turdus cardis*	Dec - Mar	Uncommon	
Common Blackbird	*Turdus merula*	Dec - Mar	Common	
Brown-headed Thrush	*Turdus chrysolaus*	Feb - Mar	Rare	
Grey-backed Thrush	*Turdus hortulorum*	Nov – Mar	Common	
Pale Thrush	*Turdus pallidus*	Feb – Mar	Uncommon	
Eye-browed Thrush	*Turdus obscurus*	Nov - Mar	Uncommon	
Dusky Thrush	*Turdus naumanni*	Spring 2000		Samson So
Streak-breasted Scimitar Babbler	*Pomatorhinus rufucollis*	Jan	Uncommon	
Masked Laughingthr	*Garrulax perspicillatus*	Year round	Very common	

English name	Species name	Month seen	Status	Source
ush				
Black-throated Laughingthrush	*Garrulax chinensis*	Year round	Common	
Hwamei	*Garrulax canorus*	Sept - Nov	Common	
Silver-eared Mesia	*Leiothrix argentauris*	Sept - Mar	Common	
Red-billed Leiothrix	*Leiothrix lutea*	Feb	Uncommmon	
White-bellied Yuhina	*Yuhina zantholeuca*	Sept - Nov	Uncommon	So, 2001
Asian Stubtail Warbler	*Urosphena squameiceps*	Nov - Mar	Common	
Japanese Bush Warbler	*Cettia diphone*	Nil	Common	So, 1996
Yellow-bellied Prinia	*Prinia flaviventris*	Sept - Nov	Common	So, 1996; Lock, 2000
Common Tailorbird	*Orthotomus sutorius*	Year Round	Very common	
Dusky Warbler	*Phylloscopus fuscatzrs*	Sept - Nov	Common	Lock, 2000
Radde's Warbler	*Phylloscopus schwarzi*	Mar	Uncommon	
Pallas's Leaf Warbler	*Phylloscopus proregulus*	Sept – Dec	Common	So, 1996; Lock 2000
Yellow-browed Warbler	*Phylloscopus inornatus*	Sept - Nov	Very Common	
Arctic Warbler	*Phylloscopus borealis*	Sept - Dec	Common	So, 1996; Lock 2000
Blyth's Leaf Warbler	*Phylloscopus reguloides*	Nov - Jan	Uncommon	
Grey-crowned Warbler	*Seicercus tephrocephalus*	Mar	Very rare	
Dark-sided Flycatcher	*Muscicapa sibirica*	Sept - Nov	Uncommon	So, 1996; Lock 2000
Asian Brown Flycatcher	*Muscicapa dauurica*	Sept - Mar	Common	
Ferruginous Flycatcher	*Muscicapa ferruginea*	Mar	Very rare	
Veriditer Flycathcer	*Eumyias thalassina*	1996		Samson So
Mugimaki Flycatcher	*Ficedula mugimaki*	Nov - Dec	Uncommon	
Asian	*Terpsiphone*	Sept -	Uncommon	So, 2001

English name	Species name	Month seen	Status	Source
Black-throated Laughingthrush	*Garrulax chinensis*	Year round	Common	
Hwamei	*Garrulax canorus*	Sept - Nov	Common	
Silver-eared Mesia	*Leiothrix argentauris*	Sept - Mar	Common	
Red-billed Leiothrix	*Leiothrix lutea*	Feb	Uncommmon	
White-bellied Yuhina	*Yuhina zantholeuca*	Sept - Nov	Uncommon	So, 2001
Asian Stubtail Warbler	*Urosphena squameiceps*	Nov - Mar	Common	
Japanese Bush Warbler	*Cettia diphone*	Nil	Common	So, 1996
Yellow-bellied Prinia	*Prinia flaviventris*	Sept - Nov	Common	So, 1996; Lock, 2000
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Pallas's Leaf Warbler	*Phylloscopus proregulus*	Sept – Dec	Common	So, 1996; Lock 2000
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Dark-sided Flycatcher	*Muscicapa sibirica*	Sept - Nov	Uncommon	So, 1996; Lock 2000
Asian Brown Flycatcher	*Muscicapa dauurica*	Sept - Mar	Common	
Ferruginous Flycatcher	*Muscicapa ferruginea*	Mar	Very rare	
Veriditer Flycathcer	*Eumyias thalassina*	1996		Samson So
Mugimaki Flycatcher	*Ficedula mugimaki*	Nov - Dec	Uncommon	
			Uncommon	So, 2001

English name	Species name	Month seen	Status	Source
Paradise-flycatcher	*paradisi*	Nov		
Yellow-bellied Tit	*Parus venustulus*	1996		Samson So
Great Tit	*Parus major*	Year round	Very common	
Plain Flowerpecker	*Dicaeum concolor*	1998		
Buff-bellied Flowerpecker	*Dicaeum ignipectus*	Sept – Nov	Uncommon	So, 1996; Lock 2000
Scarlet-backed Flowerpecker	*Dicaeum cruentatum*	Sept - Nov	Common	So, 1996; Lock 2000
Fork-tailed Sunbird	*Aethopyga christinae*	Sept - Nov	Common	
Japanese White-eye	*Zosterops japonica*	Year Round	Very common	
Little Bunting	*Emberiza pusilla*	Nov	Common	So, 1996
Black-faced Bunting	*Emberiza spodocephala*	Nov	Common	So, 1996
White-rumped Munia	*Lonchura striata*	Sept – Nov	Very common	
Eurasian Tree Sparrow	*Passer montanus*	Year round	Very common	
Black-collared Starling	*Sturnus nigricoll*	Year round	Very common	
Crested Myna	*Acridofheres cristatellus*	Year round	Very common	
Blue Magpie	*Urocissa erythrorhyncha*	Sept - Mar	Common	
Grey Treepie	*Dendrocitta formosae*	Sept - Nov	Rare	So, 1996; Lock 2000
Magpie	*Pica pica*	Sept - Noc	Very common	So, 1996; Lock 2000
Large-billed Crow	*Corvus macrorhynchus*	Year round	Very common	
Budgerigar	*Melopsittacus undulatus*	Sept	Uncommon	So, 1996
Oriental Turtle Dove	*Streptopelia orientalis*	Nov	Common	
Red Collared Dove	*Streptopelia tranquebarica*	Sept – Nov	Uncommon	So, 2001

SWIMS tidings....

Another year seems to have come and gone since the last *Porcupine!*, but this does not reflect a lack of activity – rather a rather rapid passing of time! SWIMS, as ever, has been a centre of research activities, including hosting workshops and talks (the most notable being on tidal movements and patterns with the Hong Kong Marine Biological Association); receiving research visitors (from China, Germany, Italy, UK, Korea, Singapore, Russia) and participating in the second year of the highly successful Ocean Park Conservation Foundation Internships, during which students worked with giant pandas, river dolphins and baiji.

This year has also seen a huge increase in visitor numbers and outreach activities, the most ambitious involving 17 King George V school students on work experience, who, together with helpers from other Hong Kong schools and universities in the UK, Canada and of course our own HKU students, helped boost the research and also social activities at SWIMS.

We have also seen an influx of new research students and Post Doctoral fellows. Ex-SWIMS graduate, Dr Ng Wai Chuen, returned in January to coordinate an RGC project on barnacle distribution and genetics, joined by Dr Wai Tak Cheung, who has been working on the trophodynamics of marine communities. The SWIMS research community was further strengthened by the arrival of Dr James True, from James Cook University in Australia. James is a coral biologist and has initiated a system to cultivate and grow local corals. The transfer of Ms Joyce Ng to help establish culture facilities in SWIMS from the Kadoorie Agricultural and Research Centre has further enhanced this development.

Finally, congratulations to Drs Andy Cornish and Benny Chan who left SWIMS for new positions at WWF (HK) and Academia Sinica, Taiwan, respectively. We look forward to collaborating with them in the near future.

Gray A. Williams
Hon. Director SWIMS