

of the water was invaded by the red tide. As you may guess, none of us dared get into the water. Having reported this red tide sighting, our team eventually decided to move over to Sharp Island. This surge of red tide later spread throughout eastern waters.



Fig. 1. Team-scientist Wai Tak Cheung explaining details of our survey (Photo: Wong Yuen-Yee).

We divided ourselves into different teams, each responsible for a specific category of marine life as mentioned before. The survey was carried out along a 100 m transect line laid near the coast. The heavy rain of the few days before our survey had increased the turbidity of the water thus reducing visibility and making our survey difficult. This, combined with the rough water on that day, disturbed our survey substantially. Luckily, we all came back safe without getting injured, although some of us got seasick and... threw up overboard. Despite the poor water visibility, we were still able to record certain indicator species. For instance, over 40 wrasses (mostly *Halichoeres* spp.) were recorded. Also encountered during the survey, as reported by our teammates, were a juvenile painted sweetlips (*Diagramma pictum*) and a grouper (possibly *Epinephelus coioides* or *E. bleekeri*). Other marine fauna such as Clark's anemonefish (*Amphiprion clarkii*) (Fig. 2), cornetfish (*Fistularia commersonii*), cuttlefish eggs (Fig. 3), various kinds of starfish and cucumbers were also observed.

Although the Hong Kong government has made an effort to promote marine conservation and protection, for instance through the Big Fish Count and Reef Check, it is not uncommon to hear news about people stepping on corals, stealing corals and catching fish for aquaria. We saw signs of coral bleaching and damage during the Reef Check survey. The increasing frequency of red tides also deserves more attention. It is obvious that marine conservation entails long-term work, much more has to be done and learnt not only by the government, but also by the general public.



Fig. 2. The anemonefish, *Amphiprion clarkii* (Photo: Wong Yuen-Yee).

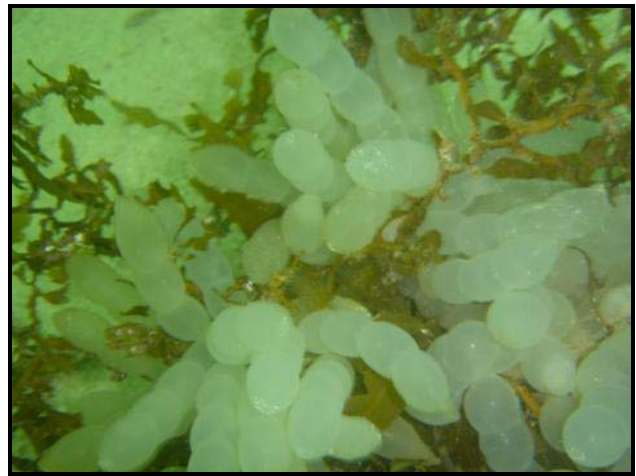


Fig. 3. Cuttlefish eggs observed during the survey (Photo: Wong Yuen-Yee).

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The Environmental Life Science Society

by Executive Committee,
Environmental Life Science Society

The Environmental Life Science Society, SS, HKU Student Union, was established on the 2 March, 2005. A good start is half the way to success! No doubt the challenges of running a new society are overwhelming, but we, the executive committee, are determined to do our best to build a concrete foundation for our society and to work with sincerity and dedication.

The mission of the Environmental Life Science Society is focused on communication and promotion of the study of Environmental Life Science within the University. This year, our aims are in tune with our mission as a whole, that is, to foster the relationship between our society's members, and to raise the interest of students within the University in studying Environmental Life Science. In order to achieve these aims, we are going to organize different types of activities, such as "Capture the Wildlife" (Wildlife Photography Competition), in which all members within the University have the opportunity to experience the beauty of nature. This will be followed by the Super Pass Dinner in late April, which offers a valuable chance for our members to foster their relationships with one another. In August, there will once again be new students joining us. Therefore, through the Information Day and Orientation Series, we sincerely hope that they can meet and get to know each other in a friendly atmosphere.

Throughout this year, our electronic magazine, *Succession*, will be published every two months. The content of this magazine will include a review of our activities, upcoming events, interviews with Hong Kong environmentalists and comments from our members. Moreover, we will bring some current environmental issues to our members' attention.

We would like to give our heart-felt thanks for your support and to all those who have contributed to the establishment of our new society. We will continue to treasure your views and support. We look forward to seeing you in our activities!

Birdbrains in the Big Bird Race 2005

by Billy Hau

The Big Bird Race 2005 was held from 17.00 h on Friday 11 March 2005 to 17.00 h of the next day. Once again, I was honoured to be the leader of the DEB team – Swire Birdbrains. Team members included Yu Yat Tung (DEB BSc and MPhil graduate); Aidia Chan, Fion Cheung and Jackie Wang (DEB MPhil students); and Polly Chick, Vicky Yeung and Law King Wai (DEB graduates). Hit by a cool front during the race, temperature went below 10 degrees in the New Territories and it was raining most of the time. We were all soaking wet at the end of the race. Despite the appalling weather, the race was fun and we had a good start at Tsim Bei Tsui on Saturday with 45 species in less than two hours. However, our luck began to fall with the sunlight – we failed to get any owls! We arrived at the Kowloon Hill water catchment at 5.30 am the next morning looking for our bird of the day – the Forest Wagtail. We got 17 woodland birds there and, just before we gave up on the Forest Wagtail and were preparing to move on to Tai Po Kau, I spotted one Forest Wagtail foraging down at the water catchment. Unlike other wagtails, in which the tail flips up and down while walking, the Forest Wagtail's tail swings horizontally. Our luck fell again at Tai Po Kau when the rain became stronger. We missed many of the "must see" species, such as the minivets, despite our strong determination in the rain. The rest of the day was depressing. We only managed to get 122 species which made us the 9th amongst the 13 teams. The winning

team had 145 species. However, we did very well this year in fund-raising. Birdbrains (see photo below) raised nearly 20,000 dollars on top of the corporate sponsorship from Swire. I must thank David for agreeing to send the pledge forms out to colleagues in HKU under his capacity as the Head of Department. It surely worked! With the help of the HK Bird-Watching Society, I am currently running a bird-watching course for around 30 year 1 and 2 Environmental Life Science students and hope that some of them will form the Birdbrains Team in 2006.



Rocky shore envy: observations vs. experiments in ecological research

by Richard T. Corlett

Most scientific research involves manipulative experiments in which the investigator assigns treatments to groups of whatever is being studied. In ecology, the treatments are things like the exclusion of predators, the addition of nutrients, or the artificial pollination of flowers. Normally the treatments are assigned randomly to each experimental unit: for example, one could flip a coin to decide if a particular plant (or vegetation plot) is to be fertilized (or cut or burned) or not. The advantage of such a randomized experiment is that we can be sure that the differences between the groups are either the result of the treatment or a result of chance, and standard statistics are very good at telling us which of these is most likely.

Randomized experiments are relatively easy to do when the relevant spatial and time scales are small, but are much more difficult when we are looking at processes that happen on very large spatial scales or over very long time periods. In such cases we are often forced to rely on observational studies or so-called "natural experiments", where we take advantage of natural variation in the factor of interest (e.g. soil fertility). These studies produce data that looks *exactly the same* as the data produced by randomized manipulative experiments, so it is therefore tempting to analyze and interpret it in exactly the same way. However, with observational studies - including