

Conservation news

Iguana iguana—a feral population in Fiji

In 2004 stories of introduced Komodo dragons on the island of Qamea started circulating in Fiji. The unidentified giant lizard was soon suspected of being an Asian water monitor, then a marine iguana but a good description was not available until October 2006, followed by a photograph in September 2008. The creature is the green iguana *Iguana iguana*, several orders of magnitude larger than any Fijian lizard.

We now know that a small number of hatchling green iguanas were illegally imported into Fiji in 2000 and later released on Qamea Island by expatriates (Naikadini, A. et al., 2009, *Alien Iguana Survey, Qamea Island, Cakaudrove Province, Fiji*. Unpublished Report to the Department of Environment and the National Trust for Fiji). Breeding populations now occur on Qamea and nearby Matagi island, and some adults have been captured or sighted on nearby Laucala Island (one in 2008), Taveuni Island (two in 2010 and one in April 2011) and distant Koro Island (one in February 2011).

On the 34 km² Qamea island most green iguana sightings have been along c. 2 km of coastline either side of the original release site in Naiviivi Bay. This coastal strip has a scattering of inhabited areas separated by patches of secondary forest, vegetable gardens and fringing mangroves, with uninhabited, primary rainforest inland. The 94 ha Matagi island has one tourist resort and few other inhabitants, and is mostly forested. No population estimates are currently available but dozens of adult green iguanas and hundreds of juveniles/subadults could potentially be living undetected in the coastal forests of these two islands.

Juveniles and subadult green iguanas are sighted in these areas in most months of the year. In August–September 2010 four gravid female green iguanas were captured and killed as they searched for potential nesting sites in open, inhabited areas: three on Qamea and one on Matagi Island. As both of these islands are forested, females need to locate open, sunny sites to nest (Bock et al, 1985, Seasonal migration and nesting site fidelity in the green iguana. In *Migration: Mechanisms and Adaptive Significance*, ed. M.A. Rankin, University of Texas Marine Sciences Institute) and such sites mostly occur in inhabited coastal areas.

The potential impacts of a large feral population of the green iguana in Fiji are many and unpredictable but economic loss and food security threats, including damage to commercial and village vegetable crops, negative impacts on native forests, competition with, and possible disease/parasite transfer to, the native Endangered Fijian banded

iguana *Brachylophus bulabula*, fouling of village and resort areas, and even plane strike risks, have all been suggested (Kraus, F., 2009, *Alien Reptiles and Amphibians. A Scientific Compendium and Analysis*, Springer). The taro export industry from nearby Taveuni Island is worth FJD 8 million annually to the Fijian economy alone.

The Fiji Department of Biosecurity Services was quick to appreciate the possible impact of this foreign pest species and in March 2010 introduced legislation making it illegal and punishable by large fines and prison sentences to transport green iguanas between the islands of Qamea, Matagi, Laucala and Taveuni. A public awareness campaign in June–July 2010 took place in every community and village in the areas on the islands where iguanas have been seen. An eradication plan funded by the Fiji Ministry of Primary Industries (Harlow, P.S. & Thomas, N., 2010, *American Iguana Eradication Project: Herpetologists' Final Report*. Unpublished Report to the American Iguana Eradication Campaign Task Force and NatureFiji–MareqetiViti, Fiji.) has commenced.

Community involvement will be the key to successful eradication of this iguana from Fiji. More than 2,000 people live in the iguana-affected areas on Qamea and Matagi Islands, and many travel regularly around the coastal fringes to work in their vegetable gardens. Reporting of iguana sightings to local coordinators who can respond quickly, catch and kill iguanas is the simplest, most effective solution. A range of detection and capture methods will be implemented, including traps, snares, camera traps and telemetry of neutered adult males during the mating season.

Kraus (op. cit.) summarized available information on 21 cases of invasion by green iguanas around the world. The species has successfully invaded 12 Caribbean islands, with eradication attempts either unsuccessful or not attempted in all of these cases. Feral populations have also become established on Hawaii, the Canary Islands and in Florida. Several incursions into continental USA have been eradicated but Kraus (op. cit.) notes that in general 47% of reptile and amphibian introductions to islands of less than 6,000 km² are successful whereas only 12% of such introductions to continents are successful. The total eradication of this species from Fiji will be difficult but, if successful, the high but short-term cost will greatly outweigh the perpetual costs of mitigating damage by a large, feral population of green iguanas.

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Twelfth Student Conference on Conservation Science

The 12th Student Conference on Conservation Science (SCCS) in Cambridge was held on 22–24 March 2011 in the Department of Zoology, University of Cambridge, and attended by over 180 student delegates from more than 60 countries. The Vice-Chancellor of the University, Professor Sir Leszek Borysiewicz, gave an encouraging introductory address in which he emphasized the multi-disciplinary nature of conservation and the diversity of the individuals involved with the protection of the environment.

Learning opportunities abounded throughout the conference and were provided through a varied and stimulating programme of plenary lectures, student presentations, poster sessions, workshops, and networking and social events. Professor Jeremy Jackson's (Scripps Institution of Oceanography, USA) opening plenary entitled 'Conservation at the crossroads: what could the oceans be like by 2025?' was hard-hitting, bleak and thought-provoking in equal measures. Conference participants were left in no doubt that if we are to avoid an ocean apocalypse, urgent and immediate action is required to tackle human impacts on the oceans such as overfishing, pollution and climate change. Professor Jackson asserted that one of the most important and pressing scientific challenges in conservation today is how to make aquaculture ecologically sustainable. Over the duration of the conference further plenary lectures were given by leading conservation researchers, Professor Wolfgang Cramer (Postdam Institute Climate Impact Research, Germany), Professor E.J. Milner-Gulland (Imperial

College, UK) and Professor Kerry Turner (University of East Anglia, UK).

As an international conference, aimed entirely at young conservationists, key features of the SCCS series are the student presentations, poster sessions and workshops. Grouped thematically, the student talks were interspersed with a selection of practical 90-minute workshops offered by senior research scientists and conservation practitioners. In all there were 31 student talks on a diverse range of topics, and prizes were awarded for three presentations: REDD and the indigenous question: a case study from Ecuador; Tibetan sacred sites and conservation; and Black-buck social behaviour influences dispersal of an invasive plant. Students were invited to submit posters based on their participation in conservation research and over 100 were displayed. Social and networking events, such as the Who's Who in Conservation? provided conservation students not only with an opportunity to consume large quantities of pizza but also to meet with staff or representatives from conservation agencies, institutes and NGOs.

The next SCCS conference in the Cambridge series will be on 20–22 March 2012 and a detailed report on the 2011 conference may be found at <http://www.sccs-cam.org/previous/overview.htm>. Two new meetings in the SCCS series were held for the first time in 2010, in Bangalore, India (<http://www.sccs-bng.org/>) and New York, USA (<http://symposia.cbc.amnh.org/sccsny>), and further meetings in these two series are planned for September 2011 and October 2011, respectively.

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Conservation Leadership Programme announces 2011 awards

The Conservation Leadership Programme (CLP) has announced this year's 30 award-winning projects in 19 different countries, worth a total of USD 492,000. For many awardees this is the first time they have received funding to manage their own conservation projects. This year, for the first time, the Programme will be supporting researchers in Belize, Iraq and Macedonia. The awards also include Follow-up and Leadership prizes for previous winners whose projects have already achieved success. For example, one group of researchers working on two highly threatened and poorly known amphibian species in China have successfully raised awareness on these species amongst the global scientific community and Chinese public. Another project aims to reduce the supply and consumption of pangolins and turtles in restaurants in Guangzhou—a Chinese city that has a long history of wildlife consumption. The award winners do not just receive financial

support. All award-winning team members become part of the CLP alumni network, which supports c. 3,500 conservation leaders. This network helps awardees implement conservation projects and carry out research in often challenging and isolated environments. Alumni members also receive access to additional grants, mentoring from CLP staff and training. A representative from each award-winning team recently took part in CLP's International Training Course in June 2011 at a remote ecological research station in the foothills of the Canadian Rockies.

The CLP has supported over 530 projects since the programme's inception in 1985. The Programme is a partnership between Fauna & Flora International, BirdLife International, Conservation International and the Wildlife Conservation Society. Visit the awards page on the CLP website (<http://www.conservationleadershipprogramme.org/>) for more information and see p. 460 for the call for applications for the 2012 awards.

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18th annual Whitley Awards

The 18th annual Whitley Awards Ceremony was held on 11 May at the Royal Geographical Society in London. The flagship event of UK based charity the Whitley Fund for

Nature was hosted by writer and broadcaster John McCarthy, and saw seven conservation leaders from seven countries receive Whitley Awards worth GBP 30,000 each in project funding over 1 year in support of their work. Over 400 people attended the event where the charity's patron, HRH The Princess Royal, presented the Awards. Rachel Graham of Belize won the evening's Whitley Gold Award—worth an additional GBP 30,000 and a second year of funding—in recognition of her success in conserving the sharks and rays of Belize that are crucial to maintaining the healthy marine ecosystems that sustain the country's tourism and fisheries industries. The other 2011 Whitley Award Winners are: Ramana Athreya, India (Community-led landscape conservation in Arunachal Pradesh); Jana Bedek, Croatia (Preserving the subterranean karst habitats of the Dinaric Arc); Elena Bykova, Uzbekistan (Conservation of the Critically Endangered saiga antelope); Hotlin Ompusunggu, Indonesia (Reducing deforestation of Borneo's Gunung Palung National Park through improved community health-care); and Luis Rivera, Argentina (Threatened parrots as flagships for conservation of the Southern Yungas). For more information on the Whitley Fund for Nature, the Whitley Awards and to view short films about each of the winning projects, see <http://www.whitleyaward.org/>

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