IRCF REPTILES & AMPHIBIANS
CONSERVATION AND NATURAL HISTORY

TRAVELOGUE

Reptiles and Amphibians among the Wildlife Surviving in and between the Developed Landscapes of Hong Kong

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Photographs by the author

Hong Kong, officially the Hong Kong Special Administrative Region of the People's Republic of China, is among the most densely populated places in the world, home to over 7.4 million people in an area of approximately 1,000 km^2. The once sparsely populated clusters of farming and fishing villages have transformed into one of the world's most important financial centers and commercial ports (Schenk 2001), which is the image of Hong Kong that first comes to most people's minds. However, I was interested in exploring the wildlife during my trip in October 2016. Wildlife in Hong Kong has either urbanized or survived within the networks of remnant habitat patches and country parks (Fig. 1). During my travels, some local people provided anecdotes of wildlife they had observed incidentally but they doubted I would see much. By the end of the journey, I considered this merely a reflection of many people having overlooked nature in their homeland. Certainly, the scientific literature has demonstrated that a diverse wildlife has persisted in and between the developed areas (e.g., Chung and Corlett 2006; Rowley et al. 2007; Pei et al. 2010). My base was my grandparents' residence, a small apartment in Tsz Wan Shan, which was perfectly placed near the base of the Lion Rock Country Park.

Toward the eye of the storm

The landscape was damp with heavy rainfall when I arrived, and two typhoons hit during the first week. When these storm cells arrive, regular travel ceases, so it was time to start exploring. Despite the downpour, a variety of wildlife was visible at the Shing Mun Reservoir (Fig. 2), including birds such as Oriental Magpies (*Pica serica*) scratching the leaf litter for prey items, which would probably include the Chinese Skink (*Eumeces chinensis chinensis*). The country park enclosing this reservoir is an important area for monkeys, predominately pure Rhesus Macaques (*Macaca mulatta*) and hybridized individuals with similar species (Southwick and Southwick 1983; Wong 1994). Along the way, I lifted a piece of corrugated metal and revealed a large Asian Black-spined Toad (*Duttaphrynus melanostictus*), a species I would encounter repeatedly. This is probably the most common amphibian in Hong Kong, inhabiting a range of habitats from the mountain forests all the way down into lowland wetlands and villages. The Shing Mun Reservoir also is one of the locations where introduced populations of Chinese Water Dragons (*Physignathus cocincinus*), native to China and southeastern Asia, have become established (Mo 2019a).

Fig. 1. From the summit of Tai Mo Shan, Hong Kong's highest peak, the developed landscape of Kowloon and Hong Kong Island can be seen beyond an expanse of country parks.

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Fig. 2. Wildlife in the rain. A very wet juvenile Rhesus Macaque (*Macaca mulatta*) (upper left), an Asian Black-spined Toad (*Duttaphrynus melanostictus*) suited to the conditions (upper center), an unbothered Asian Koel (*Eudynamys scolopaceus*) (upper right), a Chinese Skink (*Eumeces chinensis chinensis*) (lower left), two Oriental Magpies (*Pica serica*) foraging (lower center), and a Chinese Water Dragon (*Physignathus cocincinus*) (lower right).

As heavier rainfall set in, I took to spotlighting for nocturnal creatures on the streets of Tsz Wan Shan and Wong Tai Sin. This choice of adventure provided intermittent opportunities to shelter under cover but was fruitful, revealing large numbers of Bowring's House Geckos (*Hemidactylus bowringii*) on buildings and tree trunks (Fig. 3). More of these lizards were found near my great aunt's residence in the Ha Wo Che Village near Sha Tin on the other side of the Lion Rock Country Park. The village is a perfect place for insectivorous reptiles and amphibians that provide an underrated pest control service. I also encountered the first of many Asian Black-spined Toads living among humans, as well as some Four-clawed Geckos (*Gehyra mutilata*) that were quite pale (Fig. 4), a trait often observed in geckos inhabiting artificial walls (Fulgione et

Fig. 3. A close encounter between a Bowring's House Gecko (*Hemidactylus bowringii*) and a snail on a wet evening.

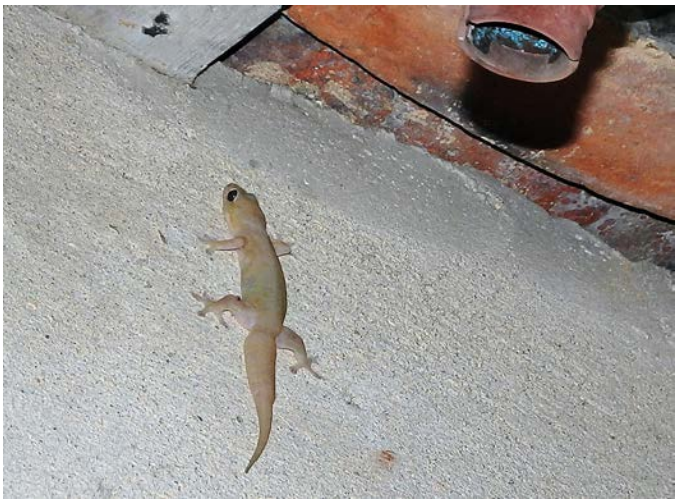

Fig. 4. A pale Four-clawed Gecko (*Gehyra mutilata*) scampering out of reach up a village wall.

al. 2019). As rainfall eased, locals ventured out and asked what I was doing. One of them told me he had recently captured a cobra in the village, either a Chinese Cobra (*Naja atra*) or King Cobra (*Ophiophagus hannah*), which he kept in a bag for a few days before relocating it back to the forest. This was truly a positive example of someone who saw some value in native wildlife, albeit a dangerous animal to harbor even for a short time.

When the first typhoon arrived, authorities advised everyone to stay inside. However, during the consistently rainy days between the two typhoons, I took advantage of the opportunity to visit the local markets. At a wet market, I found live Chinese Bullfrogs (*Hoplobatrachus rugulosus*; Fig. 5) and Chinese Softshell Turtles (*Pelodiscus sinensis*; Fig. 6) for sale. For animals that spend their natural lives seeking refuge under debris and beneath the water, seeing them completely exposed in confinement and packed together was a sad sight. Some of the store owners were suspicious and anxious of me taking photographs; fortunately, my grandmother was nonchalant and proudly pointed out her grandson from Australia.

Still unable to venture into the forests, I visited Mong Kok, a major commercial center where consumers can purchase a variety of biotic and abiotic products. Amongst these were a range of native and exotic animals being sold as pets on Tung Choi Street. I saw tubs full of albino African Clawed Frogs (*Xenopus laevis*; Fig. 7), a species widely imported around the world that has established many invasive populations (Measey 2017). Similarly, a consumer could take their pick of any of thousands of Red-eared Slider (*Trachemys scripta elegans*) hatchlings and contribute to the species' invasiveness (Ramsay et al. 2007; Mo 2019b). In the same hour, I photographed this North American species being sold in pet shops then flourishing in Kowloon Park's Bird Lake (Fig. 8). During this trip, I encountered many more Red-eared Sliders at numerous ponds, lakes, and rivers, as well as what I suspected were free-living Yellow-bellied Sliders (*Trachemys scripta scripta*) or River Cooters (*Pseudemys concinna*) (Mo 2019b). The pet shops also sold Chinese Stripe-necked Turtles (*Mauremys sinensis*) and Chinese Softshell

Fig. 5. Chinese Bullfrogs (*Hoplobatrachus rugulosus*) packed tightly in a wire cage for sale in a wet market. Note that some of them had worn the skin off their noses from rubbing against the cage mesh.

Fig. 6. Chinese Softshell Turtles (*Pelodiscus sinensis*) bound in netting at a wet market.

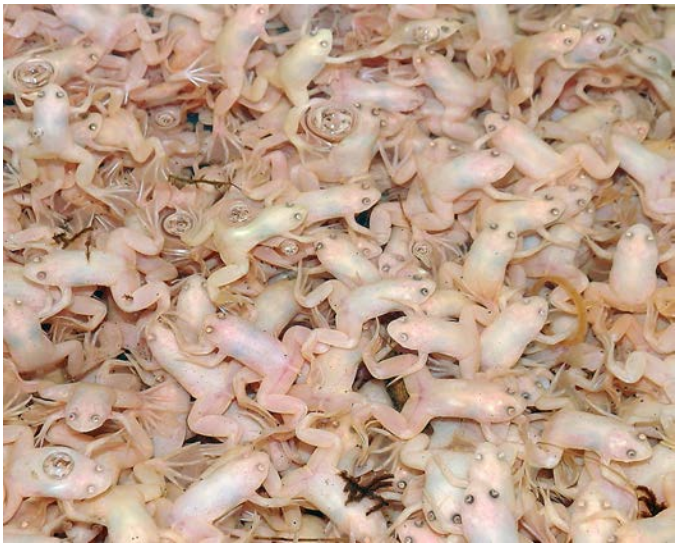

Fig. 7. Albino African Clawed Frogs (*Xenopus laevis*) among the myriad pet shop stock in Mong Kok.

Fig. 8. Cause and effect: Red-eared Sliders (*Trachemys scripta elegans*) for sale (left) and living semi-wild in Kowloon Park Bird Lake (center and right).

Turtles (Fig. 9), included respectively on the IUCN Red List as Endangered and Vulnerable (Chen and Lue 2010).

When the second typhoon hit and my explorations were once again put on hold, I judiciously stayed inside and planned the rest of my trip.

Granite slopes and wetlands of the west

As the weather eased, I visited Kam Shan Country Park to search for reptiles on the granite boulders along the roads and forests. Asian Black-spined Toads occupied many of the drainage holes and Rhesus Macaques were common. Bowring's House Geckos and Chinese Geckos (*Gekko chinensis*) were perfectly camouflaged on some of the boulders, although the outlines of their bodies gave them away, and cryptic Chinese Geckos blended effectively with the tree trunks beneath the boulders (Fig. 10). Venturing into an area of the forest that was notably silent of macaques and birds, I encountered a pair of feral dogs (*Canis lupus familiaris*). One of the dog's whitish-yellow appearance (Fig. 11) transported me back to the Australian bush where I had encountered Dingoes (*Canis lupus dingo*). Reportedly, more than 200,000 feral dogs are captured and destroyed in Hong Kong each year (Dahmer 2001), which likely protects native wildlife.

Continuing flashbacks to my homeland, I next visited Nam Sang Wai, a wetland where the Kam Tin River merges into the Shan Pui River with substantial plantings of tall River Red Gums (*Eucalyptus camaldulensis*), naturally endemic to Australia. Although the farmlands are mostly abandoned, old huts provide shelter for reptiles and amphibians. Turning over debris, I once again found a number of Asian Black-spined Toads, and two Günther's Frogs (*Hylarana guentheri*) sat just out of reach, one halfway down an old well on

Fig. 9. Chinese Softshell Turtle hatchlings (*Pelodiscus sinensis*) for sale as pets in Mong Kok.

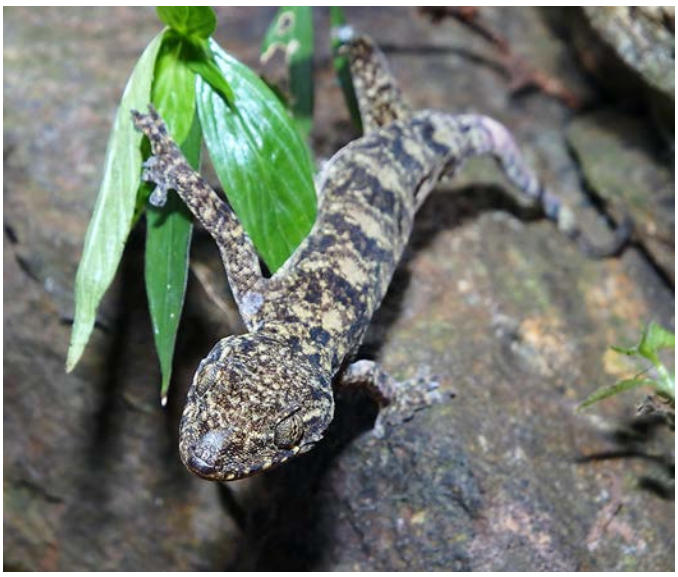

Fig. 10. A Chinese Gecko's (*Gekko chinensis*) adhesive toes grip foliage and a rock outcrop.

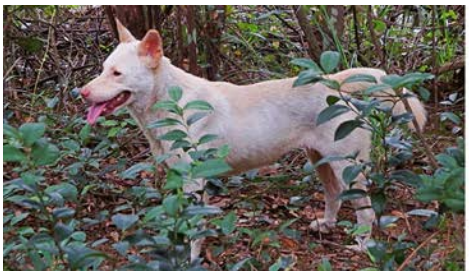

Fig. 11. One of two feral dogs (*Canis lupus familiaris*) I encountered in the forests of the Kam Shan Country Park (left).

Fig. 12. Günther's Frogs (*Hylarana guentheri*) in an old well (center) and in a rock crevice (right) in the Nam Sang Wai wetland.

what was left of an old horizontal beam and another in a deep rock crevice (Fig. 12). They had good reason to choose their daytime haunts as the mudflats provided foraging habitat for a range of waterbirds that feed on frogs, snakes, and lizards (Fig. 13). These included Grey Herons (*Ardea cinerea*), Chinese Pond Herons (*Ardeola bacchus*), Pacific Reef Herons (*Egretta sacra*), and Little Egrets (*Egretta garzetta*).

No sooner had we stopped for a rest on a log than my cousin spotted a Common Ratsnake (*Ptyas mucosus*) (Fig. 14). As we were photographing the snake, a juvenile Paddy Frog (*Fejervarya limnocharis*) hopped into view (Fig. 15). To add to the adventure, when we released the snake into the hollow base of a tree, two Asian Black-spined Toads leapt out.

The mudflats in Nam Sang Wai render the water murky,

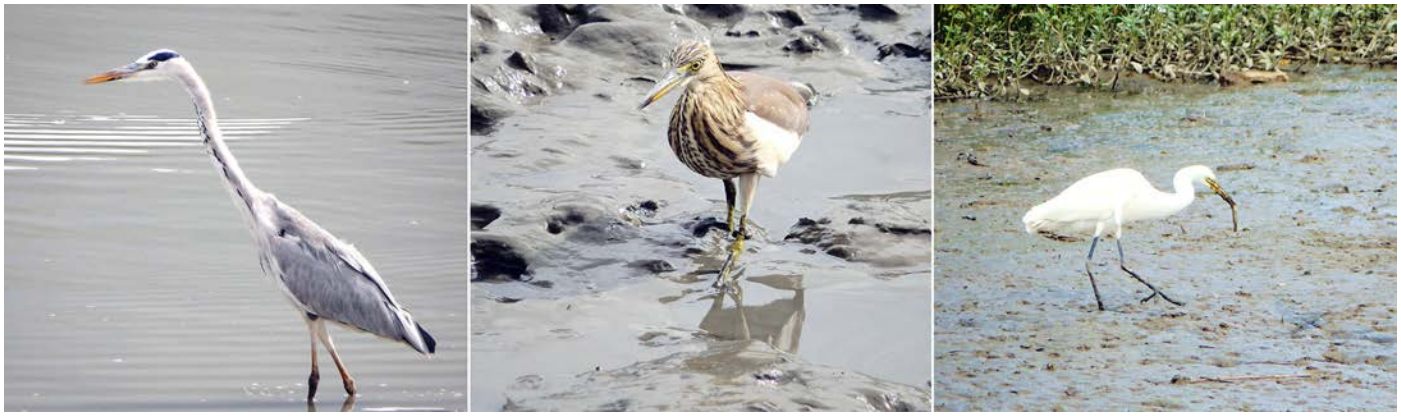

Fig. 13. Predators foraging on the mudflats: the Grey Heron (*Ardea cinerea*), one of the larger wading birds in Hong Kong (left), a Chinese Pond Heron (*Ardeola bacchus*) (center), and a Pacific Reef Heron (*Egretta sacra*) dispatching a Great Blue-spotted Mudskipper (*Boleophthalmus pectinirostris*) much as it would a captured snake or lizard (right).

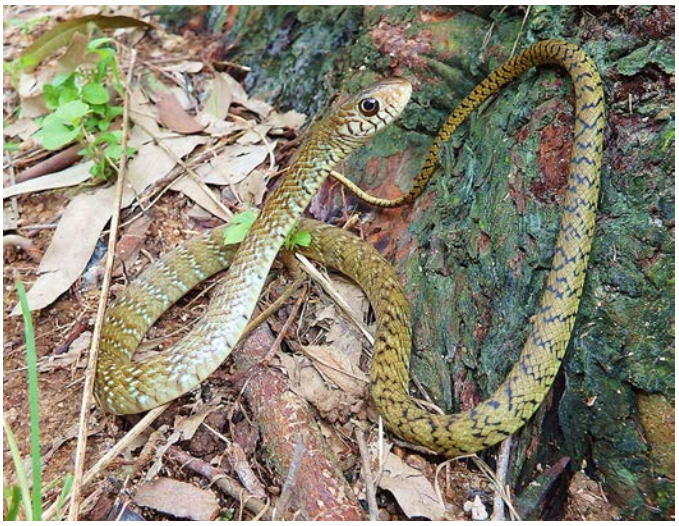

Fig. 14. A Common Ratsnake (*Ptyas mucosus*) at the base of a tree.

Fig. 15. A juvenile Paddy Frog (*Fejervarya limnocharis*) at Nam Sang Wai.

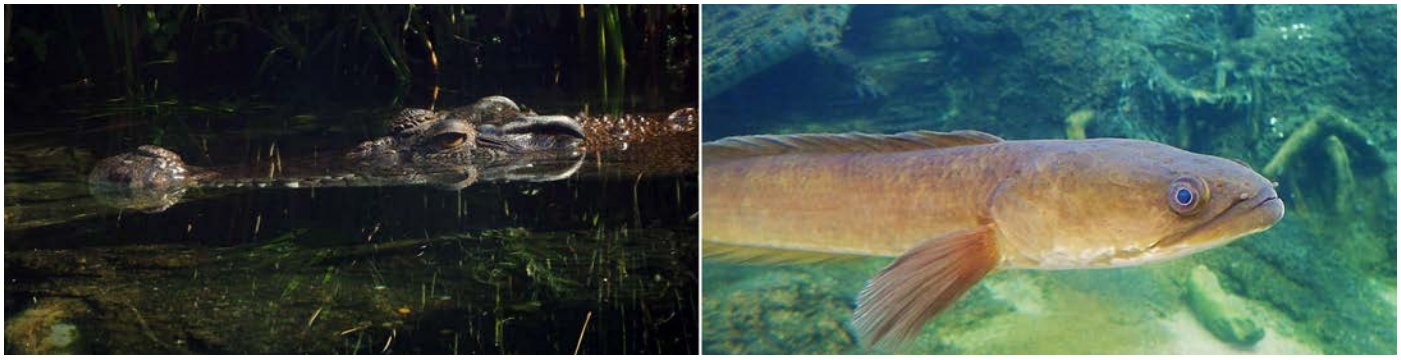

Fig. 16. Pui Pui, the Saltwater Crocodile (*Crocodylus porosus*) (left) and one of the fish sharing her home (right).

leaving what lies beneath the surface to your imagination. In November 2003, a female Saltwater Crocodile (*Crocodylus porosus*) was spotted in this area. The range of this species is speculated to have reached Hong Kong in historical times (Corlett 2004), but how this animal came to be living wild here in the 21st Century is fodder for the imagination. Named Pui Pui, the crocodile was finally captured in June 2004 and today resides at the Hong Kong Wetland Park in Tin Shui Wai (Fig. 16). The park also held False Gharials (*Tomistoma schlegelii*; Fig. 17), a species that may have historically occurred as close to Hong Kong as the Pearl River, China (Dudgeon and Corlett 1994). In addition to the captive exhibits, the park contains a variety of wetlands where wildlife is easily observed. On one of the banks, a Chinese Stripe-necked Turtle basked peacefully (Fig. 18) until startled by a flurry of activity as a snake swam quickly across the water. The abundance of butterflies, dragonflies, and other invertebrates makes the park a suitable site for lizards, including the Long-tailed Sun Skink (*Eutropis longicaudata*; Fig. 19).

Our next stop, Tai Lam Country Park, is the second largest country park in Hong Kong. It also boasts the first reservoir built after World War II. The hills and valleys were once bare and today's vast forests are the outcome of a reforestation program implemented to manage erosion issues. The granite boulders again hosted reptiles. While I approached another Long-tailed Sun Skink, I noticed it was being watched from above by a Besra Sparrowhawk (*Accipiter virgatus*; Fig. 20). Other predators, Black Kites (*Milvus migrans*), circled even higher. In the nearby boulders, Indo-Pacific Geckos (*Hemidactylus garnotii*) evaded approach. I successfully photographed an individual only during a visit to a toilet facility (Fig. 21).

Fig. 17. False Gharials (*Tomistoma schlegelii*) displayed in an indoor enclosure at the Hong Kong Wetland Park, Tin Shui Wai.

Fig. 18. A basking Chinese Stripe-necked Turtle (*Mauremys sinensis*) undeterred by my presence.

Fig. 19. A wary Long-tailed Sun Skink (*Eutropis longicaudata*) descending a boulder.

Fig. 20. A Besra Sparrowhawk (*Accipiter virgatus*) searching for prey from its perch.

Tourist destinations to the highest peak

To the west of Hong Kong, the Tuen Mun Reptile House is a popular attraction managed by the Hong Kong Government's Leisure and Cultural Services Department. I heard most of the exhibits were animals that were either discarded pets or confiscated from the illegal wildlife trade. My visit was packed with a wide range of reptiles from different continents; a Woma Python (*Aspidites ramsayi*) and a Frill-necked Lizard (*Chlamydosaurus kingii*) from my native Australia, a Giant Blue-tongued Skink (*Tiliqua gigas*) from southeastern Asia, an Indian Star Tortoise (*Geochelone elegans*) from the Indian Subcontinent and the Middle East, a Mali Spiny-tailed Lizard (*Uromastyx maliensis*) and a Madagascar Day Gecko (*Phelsuma madagascariensis*) from Africa, and a Red Tegu (*Salvator rufescens*) and a Spectacled Caiman (*Caiman crocodilus*) from tropical America. I wondered how many of these creatures could naturalize in Hong Kong's subtropical environment. Coming from a country that has banned the household keeping of exotic reptiles, I reflected on the dangers of having such an unrestricted pet industry, a thought which has been articulated by several authors (e.g., Chapple et al. 2016; Filz et al. 2018; Lockwood et al. 2019).

Interestingly, the Asian Water Monitor (*Varanus salvator*; Fig. 22), represented by a juvenile, was extirpated in Hong Kong (Dudgeon 1996); sporadic reports of individuals in country parks are believed to be escapees (Agriculture,

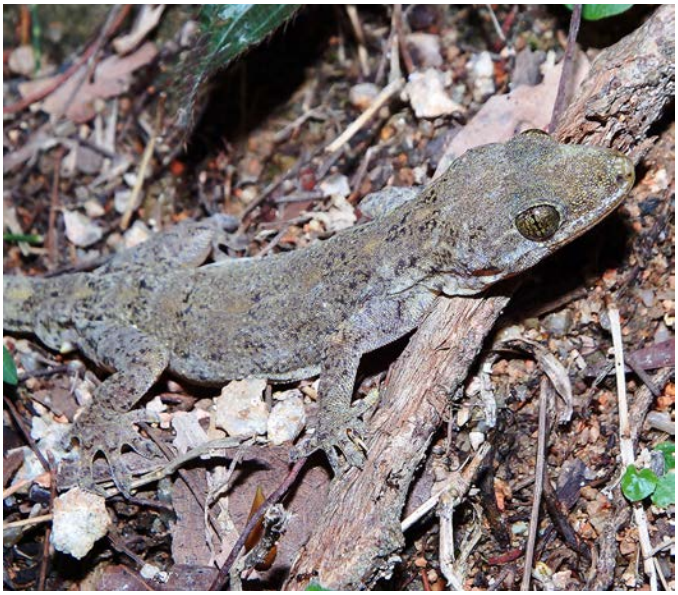

Fig. 21. An Indo-Pacific Gecko (*Hemidactylus garnotii*) near a toilet facility.

Fig. 22. A juvenile Asian Water Monitor (*Varanus salvator*) at the Tuen Mun Reptile House.

Fig. 23. A large Asian Water Monitor (*Varanus salvator*) at the Kadoorie Farm and Botanic Garden, Lam Tsuen.

Fig. 24. Difficult to find in the wild, I saw this critically endangered Golden Coin Turtle (*Cuora trifasciata*) only through glass.

Fisheries and Conservation Department 2018). Visiting the Kadoorie Farm and Botanic Garden, a conservation and education center situated on the mountain slopes of Lam Tsuen, I had the opportunity to see a very large Asian Water Monitor (Fig. 23). Given that most people in Hong Kong live in relatively small apartments, the size of this lizard makes keeping it as a pet for its entire lifespan difficult. It grows to be the second largest lizard in the world, smaller than only the Komodo Dragon (*Varanus komodoensis*). My visit to the Kadoorie Farm and Botanic Garden also gave me the opportunity to see the critically endangered Golden Coin Turtle (*Cuora trifasciata*; Fig. 24). This is one of several reptilian species threatened by relentless poaching (Gong et al. 2017; Sigouin et al. 2017).

Tai Mo Shan is Hong Kong's highest peak, rising 957 m above sea level. The extinct volcano is part of Tai Mo Shan Country Park, which covers 14 km^2. The hike to the summit passes through mountain grasslands and extensive stands of bamboo, an opportunity to see some of the species found only at higher elevations. Among the stray cattle (*Bos taurus*), a Giant Spiny Frog (*Quasipaa spinosa*) took cover inside a

Fig. 25. Taking cover before nightfall, a Giant Spiny Frog (*Quasipaa spinosa*) hides in a drainage pipe.

Fig. 26. Hatched gecko eggs stuck to the roof and walls of a drainage pipe.

drainage pipe (Fig. 25). This individual was small, but they grow to be the largest frog in Hong Kong. Again, the rock crevices were abundantly stocked with Chinese Geckos. Many drainage pipes were blocked and now serve only as wildlife shelters, in which geckos lay their eggs (Fig. 26). At the summit, a Five-lined Blue-tailed Skink (*Plestiodon elegans*) raced out from under a discarded sheet of plastic, too fast to be photographed.

Forests to the east

The walk to the summit of Lion Rock is a popular hike. This upland separates the urban areas of Tsz Wan Shan in the south from Sha Tin in the north. On Sha Tin Pass Road, I encountered two juvenile Wild Boars (*Sus scrofa*) foraging alongside the road with their large mother watching from farther up the hill (Fig. 27). Fortunately, she did not react to my presence nor to that of hundreds of other hikers. Farther up, I found more Asian Black-spined Toads and feral dogs. At home, looking back at my photographs, I realized that a Crab-eating Mongoose (*Herpestes urva*) was in the background of one image (Fig. 28). A group of Rhesus Macaques also appeared and I followed them to Man Tat Village. Toads were plentiful and I found an Indian Forest Skink (*Sphenomorphus indicus*; Fig. 29) under a sheet of corrugated metal.

As evening approached, I searched around a mountain stream, where I found a Mountain Watersnake (*Sinonatrix percarinata percarinata*) semi-submerged in aquatic vegetation (Fig. 30). Only because I was actively looking for snakes did we see this animal. As darkness set in, the mountain streams became alive with Lesser Spiny Frogs (*Quasipaa exilispinosa*; Fig. 31). At first, they remained motionless but their camouflage failed them in the bright beam of the headlamp. When

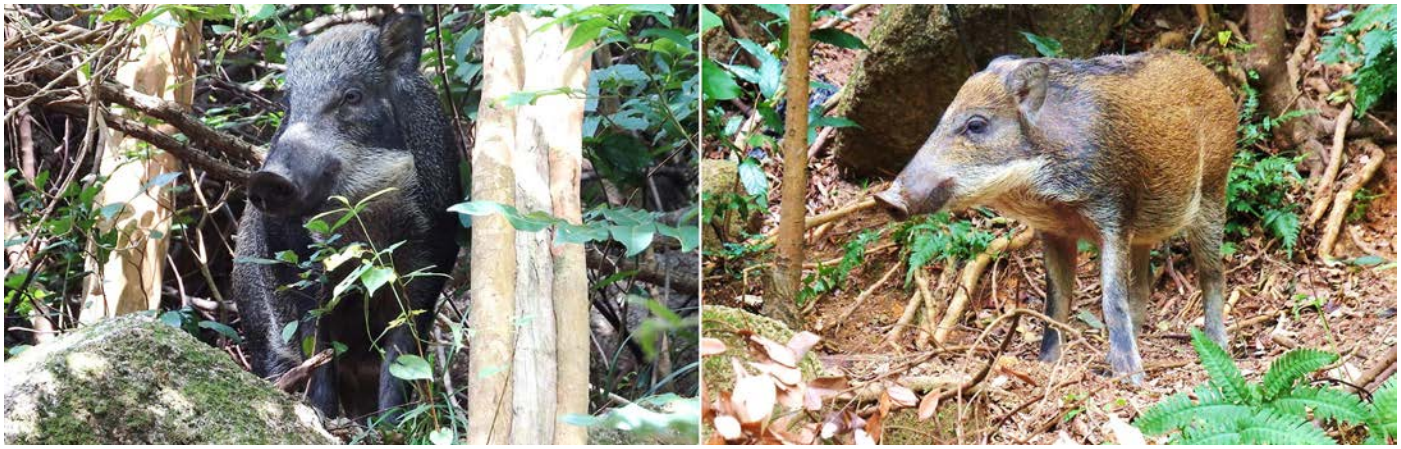

Fig. 27. A large female Wild Boar (*Sus scrofa*) (left) and one of the juveniles over which it was watching (right).

Fig. 28. A Crab-eating Mongoose (*Herpestes urva*) is visible in the background of this photograph of feral dogs.

Fig. 29. An Indian Forest Skink (*Sphenomorphus indicus*) that had been sheltered under a sheet of corrugated metal.

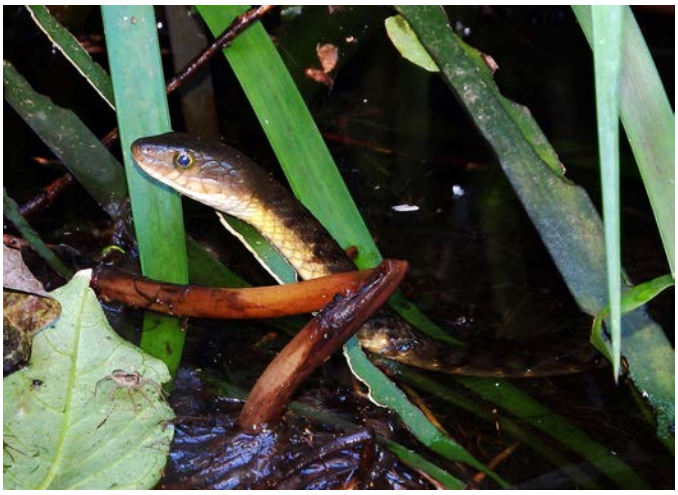

Fig. 30. An inconspicuous Mountain Watersnake (*Sinonatrix percarinata percarinata*).

Fig. 31. One of the many Lesser Spiny Frogs (*Quasipaa exilispinosa*) inhabiting a mountain stream.

they did move, they did so quickly. The trees above were perfect perches for Brown Treefrogs (*Polypedates megacephalus*; Fig. 32). On the trail back down the mountain, I stumbled across a Wild Boar walking up the road less than 10 m away (Fig. 33). Stopping to give it space, I was relieved when it returned the favour by disappearing into the dense forest. Although I found no frogs on the road, every turn down a walking track yielded Brown Treefrogs in the trees and on the ground. I wondered whether the patrolling boar was responsible for the lack of frogs on the road, where I had seen nothing other than poisonous Asian Black-spined Toads.

The next day, meandering around the Tai Po Kau Nature Reserve, I explored dense forests moistened by light rain. The nature reserve is an important area for forest birds and butterflies. The insect life was abundant and diverse, providing ample food resources for Chinese Geckos and Asian Black-spined Toads. In one section of a mountain stream, I found a few variably colored Hong Kong Newts (*Paramesotriton hongkongensis*; Fig. 34), the only salamander found in Hong Kong. They once were believed to be endemic to Hong Kong (Myers and Leviton 1962) until extralimital populations were recorded in Guangdong Province on the Chinese mainland (Gu et al. 2007).

From the bus heading to the Sai Kung East Country Park, I spotted the familiar stray cattle along the roadside as well as Black Kites, Long-tailed Sun Skinks, and Red-eared Sliders at the drop-off point. This country park extends into the vast Sai Kung Peninsula and features grassy peaks, shrublands, forests, mangroves, and beaches. Owing to their amazing camouflage, some Chinese Geckos were sufficiently confident to perch exposed in the sun outside caves while rock crevices contained hundreds more. One Bowring's House Gecko had been caught in the web of a Giant Golden Orb-weaving Spider (*Nephila pilipes*; Fig. 35).

Moving into the Pat Sin Leng Country Park, the forests were bordered by agricultural settlements. Here I came across a Changeable Lizard (*Calotes versicolor*), Hong Kong's only native agamid (Fig. 36). It spent some time at the base of a tree before moving away so fast that it might as well have disappeared. A walking track wound around hilly slopes and open forest where a pebble I passed appeared to move. Looking down, I saw that it was actually a Marbled Pygmy Frog (*Microhyla pulchra*), a tiny amphibian no wider than my index finger (Fig. 36). Farther on, a gap between two concrete slabs alongside riparian vegetation provided a retreat for terrestrial lizards such as the Brown Forest Skink

Fig. 32. Brown Treefrog (*Polypedates megacephalus*) in hand.

Fig. 33. Meeting a Wild Boar (*Sus scrofa*) on the road.

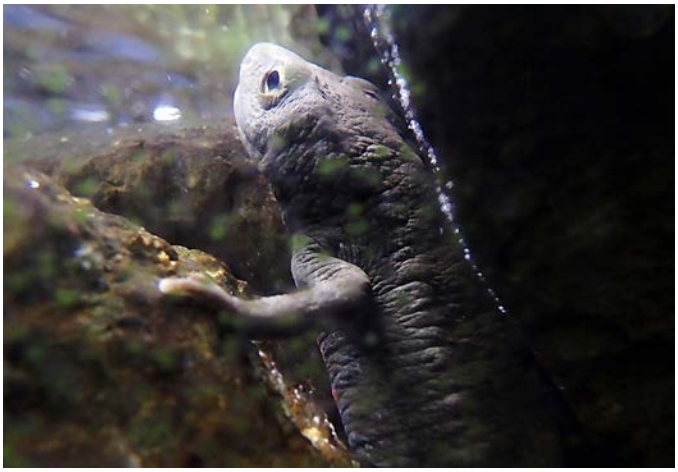

Fig. 34. A Hong Kong Newt (*Paramesotriton hongkongensis*) emerging from a series of submerged rock crevices.

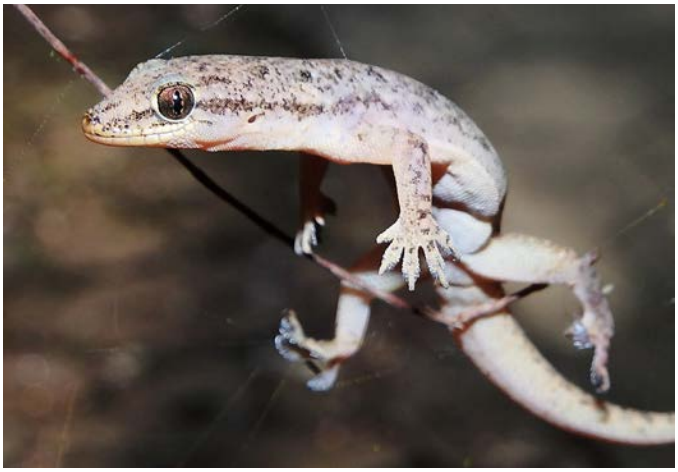

Fig. 35. A Bowring's House Gecko (*Hemidactylus bowringii*) caught in the web of a Giant Golden Orb-weaving Spider (*Nephila pilipes*).

(*Sphenomorphus incognitus*; Fig. 36). Nearby, an Indian Forest Skink appeared to be caught in a spider web (Fig. 36) until it ran away unhindered.

Concrete jungles and coastal headlands of Hong Kong Island

With my trip coming to a close, I had not yet spent any time on Hong Kong Island. Taking a break from trekking forests, I took a day to explore Hong Kong Park and the Hong Kong Zoological and Botanical Gardens. This provided an opportunity to see some introduced species that were thriving near Hong Kong's central business district. Some highlights were the Yellow-crested Cockatoo (*Cacatua sulphurea*), Alexandrine Parakeet (*Psittacula eupatria*) and Pallas's Squirrel (*Callosciurus erythraeus thai*), species from various parts of China, the Indian Subcontinent, the Middle East, and southeastern Asia (Fig. 37). These encounters started as soon as I left the railway station and continued as I reached the parks. Artificial watercourses were filled with Red-eared Sliders, including some large individuals whose carapaces tell

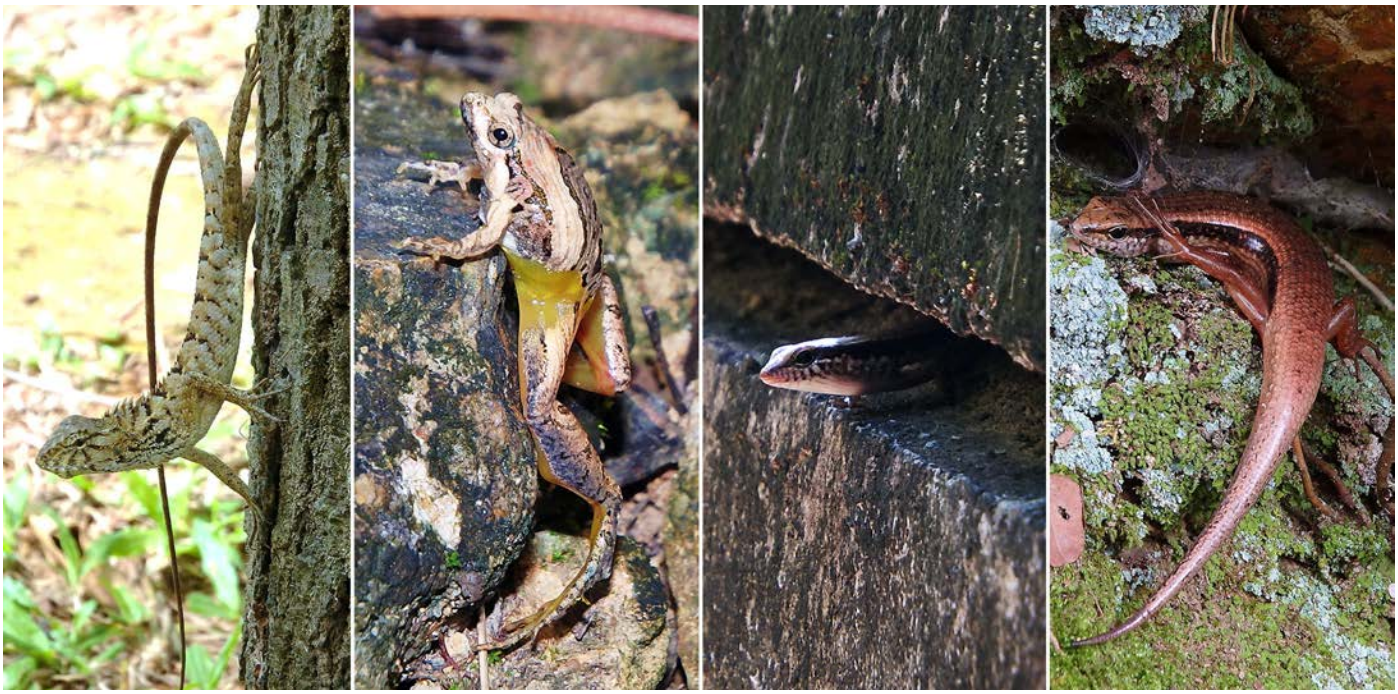

Fig. 36. A Changeable Lizard (*Calotes versicolor*) on a tree trunk in Pat Sin Leng Country Park (left), a Marbled Pygmy Frog (*Microhyla pulchra*) showing the yellow coloration on the inside of its thighs (center left), a Brown Forest Skink (*Sphenomorphus incognitus*) peering from a concrete crevice (center right), and the awkward posture of an Indian Forest Skink (*Sphenomorphus indicus*) in contact with a spider web (right).

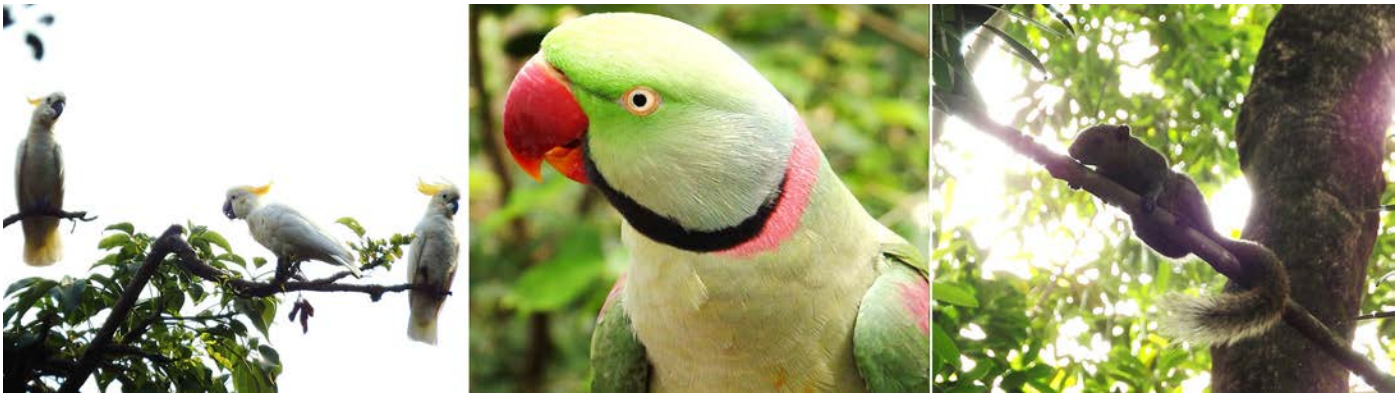

Fig. 37. Introduced and thriving near Hong Kong's central business district: Yellow-crested Cockatoos (*Cacatua sulphurea*) (left), an Alexandrine Parakeet (*Psittacula eupatria*) (center), and a Pallas's Squirrel (*Callosciurus erythraeus thai*) (right).

Fig. 38. Red-eared Sliders (*Trachemys scripta elegans*) were abundant in the artificial waterways of Hong Kong Park and the Hong Kong Zoological and Botanical Gardens. Note the adult with a deformed carapace in the foreground.

a very unnatural story. These were turtles most likely dumped as unwanted pets with deformed shells (Fig. 38) from years of poor nutrition (i.e., McWilliams 2005).

Finally, I ventured to Shek O, the peninsula in the south-eastern corner of Hong Kong Island. Jutting out into the South China Sea, the Shek O Village was founded by fishermen. Off the beaches, the rocky headlands were teeming with Chinese Geckos. These lizards were completely exposed (Fig. 39), which surprised me given the abundance of predatory birds. Amusingly, one of them was shedding its skin in a way that resembled a superhero.

Returning to my grandparents' apartment, I passed through the central business district of Hong Kong and the highly developed Kowloon Peninsula, a total contrast to the natural and semi-natural habitats I had experienced. Hong Kong is not just the concrete jungle that many people envision. On my trip, I saw at least 24 native species of reptiles and amphibians, others that were introduced, and even more species of birds. Notably, I did not see a plethora of additional reptiles and amphibians, including the Burmese Python (*Python bivittatus*), the largest snake in Hong Kong and the King Cobra, the largest venomous snake in the world. These will have to wait for a future trip.

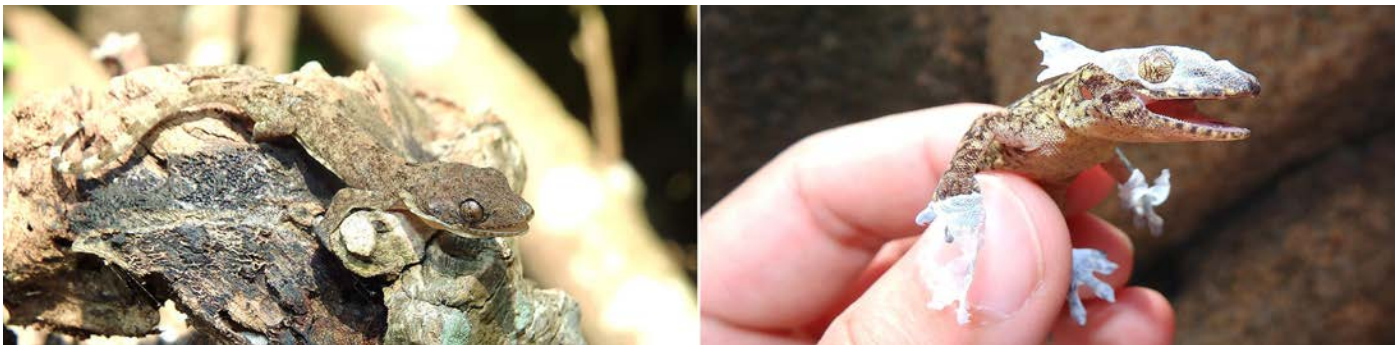

Fig. 39. A tiny juvenile Chinese Gecko (*Gekko chinensis*) assuming an intimidation posture (left) and an adult shedding its skin (right).

Literature Cited

Agriculture, Fisheries and Conservation Department. 2018. Reptiles. <https://www.afcd.gov.hk/english/conservation/hkbiodiversity/speciesgroup/speciesgroup_reptiles.html>

Chapple, D.G., J. Knegtmans, H. Kikillus, and D. van Winkel. 2016. Biosecurity of exotic reptiles and amphibians in New Zealand: building upon Tony Whitaker's legacy. *Journal of the Royal Society of New Zealand* 46: 66–84.

Chen, T. and K. Lue. 2010. Population status and distribution of freshwater turtles in Taiwan. *Oryx* 44: 261–266.

Chung, K.P.S. and R.T. Corlett. 2006. Rodent diversity in a highly degraded tropical landscape: Hong Kong, South China. *Biodiversity and Conservation* 15: 4521–4532.

Corlett, R.T. 2004. Big fierce animals of Hong Kong. *Porcupine* 31: 4–5.

Dahmer, T.D. 2001. Feral dogs and civet mortality on Kau Sai Chau, Sai Kung. *Porcupine* 24: 16–18.

Dudgeon, D. and R. Corlett. 1994. *Hills and Streams: An Ecology of Hong Kong*. Hong Kong University Press, Pok Fu Lam, Hong Kong.

Filz, K.J., A. Bohr, and S. Lötter. 2018. Abandoned foreigners: is the stage set for exotic pet reptiles to invade Central Europe? *Biodiversity and Conservation* 27: 417–435.

Fulgione, D., M. Buglione, D. Rippa, M. Trapanese, S. Petrelli, D.M. Monti, M. Aria, R.D. Giudice, and V. Maselli. 2019. Selection for background matching drives sympatric speciation in Wall Gecko. *Scientific Reports* 9: 1288.

Gong, S., H. Shi, A. Jiang, J.J. Fong, D. Gaillard, and J. Wang. 2017. Disappearance of endangered turtles within China's nature reserves. *Current Biology* 27: R170–R171.

Gu, Y., D. Yang, S. Liu, G. Zhong, W. Zhong, and J. Zeng. 2007. Survey of herpetological resources at Nankunshan Nature Reserve of Guangdong Province. *Sichuan Journal of Zoology* 26: 340–343 (in Chinese with English summary).

Lockwood, J.L., D.J. Welbourne, C.M. Romagosa, P. Cassey, N.E. Mandrak, A. Strecker, B. Leung, O.C. Stringham, B. Udell, D.J. Episcopio-Sturgeon, M.F. Tlusty, J. Sinclair, M.R. Springborn, E.F. Pienaar, A.L. Rhyne, and R. Keller. 2019. When pets become pests: the role of the exotic pet trade in producing invasive vertebrate animals. *Frontiers in Ecology and the Environment* 17: 323–330.

McWilliams, D.A. 2005. Nutrition research on calcium homeostasis. II. Freshwater turtles (with recommendations). *International Zoo Yearbook* 39: 77–85.

Measey, J. 2017. Where do African Clawed Frogs come from? An analysis of trade in live *Xenopus laevis* imported into the USA. *Salamandra* 53: 398–404.

Mo, M. 2019a. Using citizen-science reports to document range expansion of the introduced Chinese Water Dragon (*Physignathus cocincinus*) in Hong Kong. *Reptiles & Amphibians* 26: 128–131.

Mo, M. 2019b. Possible records of Yellow-bellied Sliders (*Trachemys scripta scripta*) or River Cooters (*Pseudemys concinnia*) in Hong Kong. *Reptiles & Amphibians* 26: 51–53.

Myers, G.T. and A.E. Leviton. 1962. The Hong Kong Newt described as a new species. *Occasional Papers by the Division of Systematic Biology of Stanford University* 10: 1–4.

Pei, K.J., Y. Lai, R.T. Corlett, and K. Suen. 2010. The larger mammal fauna of Hong Kong: species survival in a highly degraded landscape. *Zoological Studies* 49: 253–264.

Ramsay, N.F., P.K.A. Ng, R.M. O'Riordan, and L.M. Chou. 2007. The Red-eared Slider (*Trachemys scripta elegans*) in Asia: a review, pp. 161–174. In: F. Gherardi (ed.), *Biological Invaders in Inland Waters: Profiles, Distribution and Threats*. Springer, Dordrecht, The Netherlands.

Rowley, J.J.L., S.K.F. Chan, W.S. Tang, R. Speare, L.F. Skerratt, R.A. Alford, K.S. Cheung, C.Y. Ho, and R. Campbell. 2007. Survey for the amphibian chytrid *Batrachochytrium dendrobatidis* in Hong Kong in native amphibians and in the international amphibian trade. *Diseases of Aquatic Organisms* 78: 87–95.

Schenk, C. 2001. *Hong Kong as an International Financial Centre. Emergence and Development, 1945–1965*. Routledge, London, United Kingdom.

Sigouin, A., M. Pinedo-Vasquez, R. Nasi, C. Poole, B. Horne, and T.M. Lee. 2017. Priorities for the trade of less charismatic freshwater turtle and tortoise species. *Journal of Applied Ecology* 54: 345–350.

Southwick, C.H. and K.L. Southwick. 1983. Polyspecific groups of macaques on the Kowloon Peninsula, New Territories, Hong Kong. *American Journal of Primatology* 5: 17–24.

Wong, C. 1994. Studies on the feral macaques of Hong Kong. BSc Thesis, Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong.