REVIEW OF WILD ANIMALS AND BIRDS ACT (WABA): PROPOSALS FOR ITS IMPROVEMENT

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ABSTRACT

The Wild Animals and Birds Act is the principal piece of legislation that deals with the protection of wild animals and birds outside Singapore’s Nature Reserves. Conservationists have argued that the Act should be strengthened and updated. The scope of the Act needs to be clarified. In recent years new challenges have emerged that are not adequately addressed under the Act. Penalties prescribed by the Act arguably do not serve as adequate deterrents. Certain species, that are especially threatened, require greater protection. There is also a need to address the protection of species both inside and outside Nature Reserves holistically and to ensure that the measures adopted under the different legal regimes that relate to species protection in Singapore are consistent. Special measures are needed in relation to the conservation of species in unique habitats like inter-tidal zones and freshwater streams. The talk seeks to examine selected issues relating the Wild Animals and Birds Act and species protection in general.

INTRODUCTION

The Wild Animals and Birds Act (hereinafter the WABA) is the main legislative enactment in Singapore that addresses the protection of wild animals and birds outside Singapore’s protected areas. The other important legislative enactment that deals with the protection of wildlife is the Parks and Trees Act that, inter alia, addresses the protection of species inside Singapore’s Nature Reserves and National Parks. There are also several subsidiary laws that look at wildlife protection in Singapore.

Whilst the WABA defines wild animals and birds widely – “all species of animals and birds of a wild nature” – it is in practice an enactment designed to protect mammals and birds (and perhaps some reptiles). With one general exception which is addressed below, it is non-discriminatory with all creatures great and small receiving equal protection. The White-bellied Sea Eagle (Haliaeetus leucogaster) and the Oriental Pied Hornbill (Anthracoceros albirostris) receive no more protection than garden birds like the Eurasian Tree Sparrow (Passer montanus) and the Yellow-vented Bulbul (Pycnonotus goiavier). In practice, it is also very much designed to protect terrestrial species, which has meant that the protection of marine and inter-tidal species has not been properly addressed. It is also primarily an anti-poaching law that prosecutes the killing, trapping taking, keeping and selling of wildlife. In this respect, it makes no claims about having any broader role in promoting the conservation of species.

The WABA is most frequently criticized for its low penalties (it imposes a maximum fine of S$ 1000 with no imprisonment for most offences committed) and because of its unclear scope (it is unclear whether protection extends to certain terrestrial species like reptile and amphibian species). Whilst the WABA should, in this respect, be amended to impose more severe penalties to deter potential offenders and to clarify its scope, this paper deals with some of the broader issues that it should address if it is to contribute in a meaningful and adequate way to the conservation of wildlife in Singapore. These are addressed below in the form of a series of questions.

1. Is wildlife harassment the new battleground?

The growth in wildlife tourism and wildlife photography has contributed towards an increase in the number of cases of wildlife harassment. The WABA should be amended to address this growing problem and that it go beyond just addressing more traditional wildlife crimes like the hunting, trapping and killing of species. Wildlife harassment

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1 Cap 351
2 It also seeks to regulate the international trade in non-CITES species.
3 See numbered paragraph (question) 8
4 Sections 5 & 8 of the WABA
5 Section 42(a) of the Animals and Birds Act (Cap 4) in Singapore deals, in part, with the issue of cruelty to animals and birds. However laws that deal more specifically with the issue of wildlife harassment are required.
includes, getting close to, cornering, chasing and infuriating wildlife, getting close to wildlife dwellings, roosting areas and feeding sites, the touching and molesting wild animals and birds, the excessive use of flash photography, the use of bird limes, decoy birds and playbacks to attract birds, the feeding of wildlife and the defacing of nests and the clearing of vegetation to optimize photo and viewing opportunities. The WABA should incorporate provisions that address these issues specifically and which protect the privacy and psychological well-being of wild animals and birds. The law should support conservation by ensuring that wild animals and birds can perform vital biological functions like feeding, resting, breeding and fending for their young without any disturbance.

2. Should the WABA move from protecting wildlife to supporting wildlife?

The WABA should, in addition to its traditional role of protecting wildlife, support the conservation of wildlife through broader measures. Adopting an ecosystem approach in relation to the conservation of wildlife does in essence mean that law should address broader issues that affect the health and survival of wild animals and birds.

The WABA should, in addition to protecting wild animals and birds, support the protection of wildlife dwellings including nests, burrows, perches and natural shelters. The law should ensure that these are not destroyed, damaged, disturbed or taken. It should also support the protection of food sources by outlawing environmentally unsustainable activities close to the feeding sites of terrestrial species like birds and the food rich sea beds that marine species rely on. It should regulate the cutting down or harvesting of plant types and trees that wildlife rely on and support the regeneration of degraded and damaged habitats so that they can sustain wildlife. It should provide the legal basis and framework for the creation of buffer zones around protected areas where only environmentally sustainable activities can be undertaken, and for initiatives to improve the connectivity of areas rich in biodiversity.

The law should also allow special prosecutions to be brought by the authorities specifically to address the issue of environmental damage when pollution incidents have an impact on the health and well-being of wildlife. It should make Environmental Impact Assessments mandatory, especially in relation to developments that are likely to have an impact on areas rich in wildlife. It should require biodiversity offsets to be undertaken where environmental damage is unavoidable. It should also support citizen empowerment in the conservation of wildlife. For example, a formalized system of volunteers monitoring and reporting on illegal activities or assisting with public education, conservation research and wildlife rescue, would reduce the cost of conservation whilst at the same time extending the reach of such initiatives.

Finally, it should formalize legal arrangements like tax concessions, conservation easements, site management agreements and conservation funds that enable conservation to take place outside the protected areas system. Tax breaks could be offered to landowners if they support the conservation of species on their land. Management agreements should be entered into with NGOs to manage species rich areas outside Singapore’s protected areas system. Conservation funds where private contributions towards wildlife conservation are matched by government donations could provide local conservation efforts with a much needed shot in the arm. These arrangements could be mainstreamed into the national conservation strategy by the inclusion of appropriate legal provisions in the WABA.

3. Do charismatic species deserve special protection?

It is difficult to deny that from an anthropocentric standpoint, some wild animals and birds have greater appeal and accordingly have greater practical value in advancing the conservation cause. In Singapore local charismatics found outside protected areas include the Smooth Otter (Lutrogale perspicillata) and the Oriental Pied Hornbill (Anthracoceros albirostris), and the loss of these species will, from an aesthetic and psychological standpoint have a greater impact on the local biodiversity landscape. More offences should be created in relation to the protection of these animals and birds and that higher penalties should apply to offences against these species. This approach is not a novel one and in other countries legal enactments contain special schedules that grant additional protection to charismatic species like the Malayan Tiger (Panthera tigris jacksoni), the Bornean Orangutan (Pongo pygmaeus) and the Sumatran Rhino (Dicerorhinus sumatrensis). Whilst the author supports efforts to grant charismatic species additional protection, there is a risk that granting species additional protection will cause them to become the victims of ‘Freakanomics’, or the un-intended consequences of incentive systems. For example, anecdotal evidence suggests that in parts of Asia the more a species receives protection or the more severe the penalty, the higher it is valued by poachers and the consumers

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6 In response to this problem the Nature Society (Singapore) developed an extensive code on wildlife ethics.

7 In this respect, it is worth noting that the eggs of birds are protected under Section 8(b) of the WABA. Additionally, the Parks and Trees Act (Cap 214) prohibits the taking of nests in National Parks and Nature Reserves (Section 9(b)).

8 The Environmental Protection and Management Act (Cap 94(a)) and Prevention of Pollution of the Sea Act (Cap 243) deal with the issues of land and sea based pollution in Singapore but neither statute specifically addresses the impact of pollution on the environment and on biodiversity.

9 In this respect, it is worth noting that Section 13 of the WABA empowers the authorities to reward informants.
of illegal wildlife. The argument is also controversial because all species contribute in an indivisible way to the sustainability of biomes and granting some greater protection than others ignores the equal ecological importance of all species in sustaining ecosystems.

4. Do vulnerable species deserve special protection?
Some species in Singapore are especially vulnerable when one considers the illegal wildlife trade. Native song birds like the Straw-headed Bulbul (Pycnonotus zeylanicus), the White-rumped Shama (Copsychus malabaricus), the Common Hill Mynah (Gracula religiosa) and the Oriental Magpie-robin (Copsychus saularis) are illegally trapped by poachers. Other species like the Greater Slow Loris (Nycticebus coucang) and the Sunda Pangolin (Manis javanica) are also prized by wildlife traders. More offences and harsher penalties should apply to the killing or taking of these species.

Other species, whilst more common and less sought after by poachers, are extremely vulnerable, especially when one considers the threat of wildlife harassment. A female Long-tailed Macaque (Macaca fascicularis) with young has fewer options when it comes to escaping as it has to fend for its young in addition to protecting itself. Young and inexperienced animals, and slow moving animals like Malayan Box Terrapins (Cuora amboinensis) are all unlikely to be able to make quick and effective getaways when cornered or harassed. It is arguable that any natural handicap that limits the ability of a species to get away should be compensated by granting that species additional protection, with stricter laws and stronger penalties applying.

5. Do we need specialist laws to protect marine mammals and marine reptiles?
There have been recent initiatives like SWIMMS10 (the Singapore Wild Marine Mammal Survey), to study and highlight the presence of marine mammals and marine reptiles in Singapore waters. Several dolphin species, the Dugong (Dugong dugon), several species of marine turtles and Estuarine Crocodiles (Crocodylus porosus) are known to either live in or move through Singapore waters. Marine mammals and reptiles are known internationally to face threats like pollution, injuries resulting from collisions with boats, the loss of prey and feeding grounds, hunting and harassment. Whilst there is relatively little information on the specific threats these species face locally, it is important that the common threats they potentially face are, in line with the precautionary principle, specifically addressed in the WABA to assist local efforts to conserve them.

6. Do we need specialist laws to protect invertebrates?
Whilst the WABA does not specifically address the protection of invertebrates (and it may be unrealistic to protect all invertebrates), the law should arguably address the protection of certain invertebrates and deal with the specific threats faced by them. In Singapore, Mangrove Horseshoe Crabs (Carcinoscorpius rotundicauda) are often trapped and killed in unused fishing nets. Corals are often damaged by various forms of human activity and butterflies and caterpillars are harvested by trophy hunters and those seeking bait to trap fish and birds. Invertebrates have traditionally been protected within protected areas11. The uniqueness and visibility of some of these creatures does however necessitate their protection outside the protected areas system.

Uniqueness: Anecdotal evidence suggests that the population density of the Mangrove Horseshoe Crabs in the Sungei Mandai - Kranji area is one of the highest (across all species) anywhere in the world outside the breeding season. Notwithstanding that, the fact that a large concentration of this ancient species is located in land scarce Singapore is a unique natural occurrence that should be celebrated. Consequently the species should be granted greater protection and specialist laws that address specific threats faced by Mangrove Horseshoe Crabs in Singapore should be incorporated into the WABA. These include laws that outlaw net and pole fishing in inter-tidal areas, laws that prevent the taking and harvesting of the species, laws governing development activity close to their habitats and laws that regulate human activity and movement on inter-tidal mud-flats.

Visibility: The creation of butterfly parks and trails will bring butterflies and moths into greater contact with humans. Similarly, encouraging diving and exploration at coral reefs will expose corals to increased human contact. The greater visibility that these species will consequently enjoy can also lead to them facing greater threats from human activity.

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10 SWIMMS is a research project funded by the Wildlife Reserves Singapore Conservation Fund that aims to monitor wild dolphins, porpoises and dugongs in the sea around Singapore by establishing a volunteer network and reporting system to extend our field studies (description from http://www.tmsi.nus.edu.sg/imnrl/swimms.htm).
11 Section 2 of the Parks and Trees Act makes clear that Invertebrates are protected in Singapore National Parks and Nature Reserves.
Accordingly, it is important for legislative enactments like the WABA to specifically identify the threats faced by these species and to address them through prohibitions and penalties. These could include laws on the capture of butterflies and laws that regulate diving in coral rich areas and which prohibit the damaging of coral formations.\(^\text{12}\)

7. Attracting foreign talent: Do migrants deserve special protection?

Seasonal migratory birds, taking refuge from harsh northern winters and occasional migrants, like Eurasian Wild Pigs (Sus scrofa), Sambar Deer (Rusa unicolor) and Smooth Otters (Lutrogale perspicillata) that swim across from Malaysia, make Singapore their home. As Singapore urbanizes, it will become less attractive to migrants, just as, conversely, it will need more migrants to make it environmentally attractive. In order to make it more attractive to migrants, it is arguable that specialized laws and stiffer penalties need to be introduced in relation to their protection and conservation. This will ensure that Singapore continues to be a safe haven for species seeking to feed, roost or seek refuge here. Migrants also take great risks to come here. Applying economic theory to biodiversity protection, it is also arguable that the risk taken by these species should be rewarded with better protection.

8. Should some of our outlaws be given a general amnesty?

Whilst the law presently does not grant special protection to any species, six birds – the White-vented Myna (Acridotheres javanicus), the Common Myna (Acridotheres tristis), the House Crow (Corvus splendens), the Common Pigeon (Columba livia), the Asian Glossy Starling (Aplonis panayensis) and the Daurian Starling (Sturnus sturninus) - are regarded as pests under the law.\(^\text{13}\) These outlaw species receive no protection under the law and the authorities are at liberty to exterminate them. However, the list needs to be shortened. The Common Myna is no longer common in Singapore with the White-vented Myna now far more prevalent. The Daurian Starling is also not common in Singapore. It is also arguable that both Starling species and the Common Myna do not deserve to be on the list as, unlike the foraging House Crows, Common Pigeons and White-vented Mynas which regularly loiter around eateries and garbage bins, they are unlikely to have any direct impact on human health.

9. When do wild animals and birds become pests?

The issue of human-wildlife conflict is a global one and such conflict will only increase with greater urbanization and population growth. In Singapore, Long-tailed Macaques occasionally raid rubbish dumps and loiter close to human habitation. The clearing of wooded areas, by construction companies, has also resulted in snakes like Black Spitting Cobras (Naja sumatrana) and Reticulated Pythons (Python reticulatus) escaping into nearby homes. Human-wildlife conflict can result in the safety of residents being compromised and in individual animals having to be destroyed. Those who, through their actions, encourage human-wildlife conflict should be punished under the WABA. For example, those who do not properly secure their rubbish prior to disposal or who feed monkeys should be punished under the Act.\(^\text{14}\) Contractors who do not take adequate measures to minimize the impact of clearing activity on wildlife and the potential impact of such activity on nearby dwellings should be similarly punished.

10. Should greater emphasis be placed on invasive species and their impact on wild areas?

Wild areas in Singapore contain many non-native species like American Bullfrogs (Lithobates catesbeianus), Red-Eared Sliders (Trachemys scripta elegans) and several species of Cockatoos and Parakeets. Some species like the American Bullfrog are bred or imported for food. Individuals have been known to escape from their pens or tanks into the wild. Other species like the Red-Eared Sliders and several bird species are released during religious festivals or are unwanted pets that are released by owners. Wild animals and birds also escape from zoological facilities, pet shops and people’s homes.

The introduction of non-native species into wild areas could either result in these species competing with local species for resources or result in them preying on and wiping out local species altogether. Whilst initiatives have been mounted to discourage the release, accidental or otherwise of wild animals and birds, the WABA should make it illegal to do so. The law should also require both private owners and the owners or operators of bird shops, restaurants, and zoological facilities to report all animal escapes. This will allow the authorities to better monitor the impact of escapees and to recapture them, where possible. A related issue is the release of native animals into the wild as part of animal release programs and the release of “free-ranging” native and non-native animals and birds by zoological institutions to...

\(^\text{12}\) Under Section 14 of the State Lands Encroachment Act (Cap 315), the removal of corals from state land is prohibited. However laws that deal more specifically with the threats faced by corals and reefs is required.
\(^\text{13}\) The Schedule of the WABA.
\(^\text{14}\) In this respect, it is worth noting that Section 9(a) of the Parks and Trees Act makes the feeding of wild animals and birds an offence inside Singapore National Parks and Nature Reserves.
enhance the visitor experience. The WABA should formalize the policing of such releases. They should only be allowed if permission has been granted by the relevant statutory agencies and only after the environmental impact of any particular release on native species has been properly evaluated.

11. Should the law define the circumstances under which wild animals or birds can be killed?
Under the WABA the destruction of wild animals and birds is permitted when they destroy crops and property, or when an animal is deemed to be ‘noxious’15. However it is reasonable to assume that the destruction of wild animals and birds would also be permitted by the authorities when there is an imminent threat to human safety, when an individual is sick or injured and needs to be put out of its misery, when an individual is infected with a zoonotic disease that can spread to humans or where there is a need to eradicate alien invasive species. Other more contentious arguments that have been advanced in favor of destroying wild animals and birds include population management, biodiversity and habitat conservation, scientific research and pest eradication.

It is not the province of this paper to address the justifiability of these arguments but it is important for the WABA to specify clearly, the permitted reasons for destroying individual animals or birds so that both private individuals and statutory bodies can be properly guided on the precise circumstances under which it is acceptable to do so. The law should also provide greater legal clarity on the standards required in the culling of animals. The law should, for example, specify that efforts to eradicate individual animals should only be undertaken by the authorities, in a manner that is humane, measured and proportionate, only after the impact on broader ecosystems and the global status of species has been properly considered and only as a last resort when all other efforts to address the underlying issues have failed.

12. Should the law prosecute employers for ‘wildlife unfriendly acts’ committed by blue-collar employees?
Finally, anecdotal evidence suggests that foreign blue-collar employees in Singapore commit various ‘wildlife-unfriendly’ acts, some of which are illegal. These include the hunting of wild animals and birds, the taking of Baya Weaver (Ploceus philippinus) nests and the setting of fishing nets in inter-tidal zones that results in the destruction of Mangrove Horseshoe Crabs (Carcinoscorpius rotundicauda). Whilst it is important that acts like the setting up of fishing nets and the taking of nests are declared offences under the WABA, it is equally important for the law to recognize that it difficult for the authorities to properly police acts committed by blue-collar employees. The issue of wildlife crimes committed by blue-collar employees is a particularly tricky one as many of these acts are committed in secluded places, the employees concerned do not regard these acts as being offences and view the taking of wildlife as a legitimate way of supplementing their income and diet, as foreigners they do not have a stake in the conservation of Singapore’s wildlife and are thus unlikely to be receptive to public education efforts, and they are unlikely to be in a position to pay the relevant fines where these are imposed.

A solution lies in legally shifting the burden (and cost) of prevention and enforcement from the state to the employer. This would mean that if certain acts are deemed to be offences and they are committed by foreign blue-collar employees, their employers will have to pay the relevant fines and take steps to repatriate them. This will ensure that they educate their employees on wildlife offences and that they take preventive steps to ensure that their employees do not commit these offences.

CONCLUSION

The Nature Society (Singapore) has previously submitted a proposal in relation to the reform of the WABA and the issues addressed here to some extent mirror the concerns that have previously been highlighted. Other issues that have not been considered here but which need to be addressed are the impact of climate change on wildlife in Singapore and the conservation of unique species like bats. In summary, the WABA should, adopt a broader ecosystem approach to the protection of species, recognize the importance of specific species, address the unique needs of individual species and threats faced by them, deal with new threats like wildlife harassment that have emerged since the law was the last considered by lawmakers, formalize the legal approach to issues like invasive species and human-wildlife conflict, and incorporate creative strategies into the law that promote the conservation of wildlife.

15 Sections 6 & 9 of the WABA