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States' Wildlife Tourism Policy Prepares Tourists for Sustainability of Antarctica Tourism?

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Abstract

Recognition of animal welfare is reflected in national laws and policies to guide tourists and operators in dealing with animals. However, studies portray that tourists are ignorant that wildlife attraction is harmful to animals. This raises the issue as to whether the existing states' laws and regulations of zoos prepare tourists for sustainable tourism and tourism in more delicate destinations like the Antarctic. Using qualitative method, this paper focuses on Malaysia's development of the Wildlife Conservation Act 2010 and concludes that although the Act improves the condition of animals, it is not the only solution for visitors' knowledge of conversation.

Keywords: Wildlife policies; Wildlife Tourism; Sustainable Tourism; Legal Framework

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1.0 Introduction

During tourism activities, Antarctic seals and birds are affected by human activities. Antarctic tourism may lead to direct or indirect consequences to animals. The penguin colony and birds may exhibit behavioural and physiological changes in accord with a stress response, which in turn if sustained, could have a negative impact on reproduction and survival. Disturbed parents may abandon their eggs or young, making them vulnerable to predators. A recent review of research over the last two decades on the effects of human disturbance on wildlife in the Antarctic and sub-Antarctic, concluded that at some locations and for certain species, the disturbance associated with general human activities has little apparent effect on wildlife population trends, while, at other sites and for some species, human activities have been implicated in population declines, e.g. southern giant petrels (*Macronectes giganteus* (Gmelin)). Bricher et al. (2008) reported that proximity to human activities is a significant driver of the population trends of Adélie penguin colonies in the vicinity of Casey Station in East Antarctica. The majority of sub-colonies with decreasing populations are located closest to the station, although further investigations are needed to separate the potential contribution from station-related activities, such as noise and particulate emissions, from the effects of visits to the colonies.

All visits to Antarctica should be conducted in accordance with the Antarctic Treaty, its Protocol on Environmental Protection, and relevant Measures and Resolutions adopted at Antarctic Treaty Consultative Meetings (ATCM) and there is the Antarctic Treaty System and its instruments, in particular the Convention for the Conservation of Antarctic Marine Living Resources and the Environmental Protocol which provide a framework within which management of human activities take place. These Guidelines provide general advice for visiting any location; with the aim of ensuring visits do not have adverse impacts on the Antarctic environment, or on its scientific and aesthetic values. The areas emphasised among others include the provision on minimum noise, appropriate distance from wildlife,

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sensitivity towards wildlife's behaviour, provisions on precautions during breeding and strict provision against the feeding of wildlife. However, these instruments are not binding and enforcement of the instruments remains debatable. As such violation of the instruments by visitors is observed during Antarctica tourism (Tin et.al, 2009). In line with the concept of sustainable competitiveness in tourism, it is submitted that the awareness of conservation of animals in extreme tourism destinations like Antarctica should begin with visitors' awareness of conservation of animals generally at conservation centres like the zoos and as such research on conservation of wildlife is timely (Mei et al., 2016). Alignment towards conservation motives should be made (Mohit, 2014) in zoos, as wildlife tourism should be viewed as contributing towards an all-inclusive and well-balanced development of life as promoted by Bakar et al. (2016), where responsible tourism affects the quality of life (Hanafiah et al., 2016).

The aim to educate the public about conservation of animals in zoos is illustrated as the third objective of the establishment of zoos is as early as 1976 by Gerald Durrell. Animals in recreation are also recognised as an important aspect since 2000 under the Universal Declaration on Animal Welfare (UDAW). In line with many other countries, Malaysia supports the Universal Declaration on Animal Welfare in September 2008. The World Association of Zoos and Aquariums (WAZA) Code of Ethics and Animal Welfare was adopted at the 58th Annual Conference of WAZA on 19th November 2013 in San José Costa Rica. The code of ethics includes basic principles for the guidance of all members of the World Association of Zoos and Aquariums which in general, promotes the importance of animal welfare and wildlife conservation. Section 2 stipulated exhibited animals in zoo or aquariums must be entitled to sufficient space to express their natural behaviour. Also, it must not be treated in a degrading manner and that their welfare must be well taken care of. Section 3 provides a general standard for animals in an exhibition in which the section emphasizes more on the need of sufficient space and facilities for their behavioural enrichment to take place.

In general, the code identifies the main areas of current concerns which revolve around the need to maintain animal welfare while in custody of zoos management or aquariums. It also states that WAZA requires members to comply with international conventions on the movements of animals and opposes certain destructive practices. The declaration encourages the government to implement and enforce the laws that benefit and ensure animal welfare. The WAZA Guidelines for the Use of Animals in Visitor Interactions' is a summary of the usage of animals in either a zoo or an aquarium when they come in contact with visitors. The guidelines, however, are abstracted from multiple sources which consist of 2003 WAZA Code of Ethics and Animal Welfare, the 2015 World Zoo and Aquarium Animal Welfare Strategy, as well as the 2015 WAZA Resolution on Animal Interactions. This proposition advises that the WAZA members adopt policies regarding visitor-animal interactions in the either one of the places and abide the suggestions as published in the World Zoo and Aquarium Animal Welfare Strategy; where policy and recommendations are provided in this document. The document contains guidelines on 'Monitoring and Assessment' where it suggests that all interactive experiences ought frequently assessed to maintain the wellbeing of the animals and that special care should be practised when animals are taken away from their enclosures as all the activities might cause dangerous psychological impact towards the animals. Besides, proper evaluation of the activities should be carried out to ensure animal-visitor interactions are appropriate. Not only it emphasises the welfare of animals, but this guideline also provides safety measures which advise the public and staff involved, of the possible risks and indemnities associated with such animal-visitor interactions.

In some countries like the U.K., the Zoo Licensing Act 1981 under section 1A(b), the management of zoos are statutorily obliged to promote public education and awareness with regards to the conservation of biodiversity, in particular by providing information about the species of wild animals kept in the zoo and their natural habitats. There is the absence of emphasis on the importance of zoos to promote public education and awareness in the Wildlife Conservation Act 2010 as well as the specific regulation on zoos in Peninsular Malaysia, i.e. the Wildlife Conservation (Operation of Zoo) Regulations 2012. The function of the zoo as an educational centre is mentioned indirectly in the Malaysian Standards Zoo Guidelines (Management of Zoos) (Guidelines 1.11, 1.44-1.48) provided by the Malaysian Ministry of Natural Resources and Environment. The guideline also emphasises the importance of public participation in the activities of the zoos (Guideline 1.18).

Contrary to the idea of educating visitors, in many instances, surveys show that knowledge of biodiversity of visitors to the zoos are limited, and this is proven for example, in a survey of over 6,000 visitors to 30 zoos and aquariums globally in 2014, it is found that 69.8% of the respondents showed at least some positive evidence of biodiversity understanding before paying their visit. However, the remaining 30.1% of pre-visit respondents had poor to no understanding of biodiversity and that it is related to biological phenomena (WAZA, 2014). The question is whether Five Freedoms (freedom from hunger, thirst and malnutrition; freedom from fear and distress; freedom from physical and thermal discomfort; freedom from pain, injury and disease; and freedom to express normal patterns of behaviour) (Kagan, 2013) are illustrated in the zoos and visitors are educated in their visits to the zoos?

The UNWTO Global Code of Ethics for Tourism contains ten principles that cover the economic, social, cultural and environmental components of tourism to help increase the sector's benefits and to reduce any potential negative impacts. The code is an inclusive set of standards designed to guide stakeholders in playing a role towards the animals and the habitats to ensure a sustainable industry. According to the code, good tourism infrastructures and tourism activities would be those who protect the natural heritage make up of ecosystems and biodiversity. Although the code is not a legally binding document, Article 10 of the Code provides for a voluntary implementation mechanism. The role of the World Committee on Tourism Ethics is recognized through Article 10, on a voluntary basis for stakeholders to refer, any matters concerning the application and interpretation of the Code.

2.0 Malaysian Perspective

Malaysia has 12 zoos and 21 animal exhibitions being operated. The Wildlife Conservation Act 2010 (hereinafter referred to as the WCA 2010) replaced the Protection of Wildlife Act 1972 (hereinafter referred to as the PWA 1972) where the WCA 2010 provides provision

on the licensing of zoos, which is unavailable under the PWA 1972. Specific provisions on the operation of the zoos are provided under the Wildlife Conservation (Operation of Zoo) Regulations 2012 (hereinafter referred to as the Regulations 2012) (took effect on 1 February 2012), where this regulation emphasizes mainly on the wellbeing of animals in the zoo. The Malaysian Ministry of Natural Resources and Environment has also issued a 'Malaysian Standards Zoo Guidelines (Management of Zoos)'. A court may take the guideline into account in the reflection in any given case. The guideline provides, among others, a zoo management plan, inputs or research on wildlife, veterinary services, conservation programmes, and information for the public, visitors' facilities, and emergency action plan, wildlife welfare and breeding control management. Apart from that, it also includes natural behaviour and social life or wildlife which are essential for the habitat existence of the animals because the heavy density of vegetation would result in higher habitat existence (Aziz & Rasidi, 2013). Moreover, appropriate vegetation serves as protection from air pollution, stabilising the ecology and nesting areas for the animals (Idilfitri & Mohamad, 2012). Hence, it takes into account all "best practices" as implemented in many zoos around the world. The requirement of notice of standards in of the animals in the zoos to be portrayed in the zoos as provided in the Malaysian Standards Zoo Guidelines (Management of Zoos) (Guidelines 1.43.99) illustrate and promote the idea of conservation in the zoos amongst visitors.

Membership in associations could ensure a more standardised operation of zoos. The Malaysian National Zoo, for example, is a member of World Association of Zoos & Aquariums (WAZA), South-East Asia Zoos Association (SEAZA) and Malaysian Zoological Park & Aquaria (MAZPA). The National Zoo is certified by SIRIM 9001:2008 since 2006. All standard operating procedure (SOP) including husbandry practices, veterinary care, administration processes and customer care services follows the Quality Management System by SIRIM. To comply with the standards, the Zoo Negara is audited once a year by SIRIM. Additionally, the National Audit Department has been stationed at Zoo Negara for six months to monitor daily administrative operations.

3.0 Sufficient Space

In 2009, following an investigation into the welfare standards at thirty-nine zoos in Peninsular Malaysia, Animal Concerns Research And Education Society (ACRES) identified the ten zoos of most concern from an animal welfare perspective. 90.6% of enclosures were undersized. Most enclosures provided extremely small living spaces for the animals they housed; in some cases, the area provided severely restricted the animals' movement. This lack of space prevented animals from engaging in natural movements and behaviours, which are essential for their well-being.

However, this situation changes with the implementation of the Regulations 2012. According to Regulation 6 of the Regulations 2012, zoo operators must provide an appropriate and suitable enclosure for each wildlife species according to the sizes where it is specified in the Schedule. The enclosures for each of the wildlife species must cater to the natural behaviour as well as the basic needs of the wildlife. This is also emphasised in the Malaysian Standards Zoo Guidelines (Management of Zoos) (Guideline 1.11) which is provided by the Malaysian Ministry of Natural Resources and Environment to avoid conflicts between the species or among same species (Guideline 1.43.33). With the effect of these regulations and guidelines, visitors at the zoo could observe more comfortable environment for the animals and it is hoped that they could also sense the need for the spacious environment.

4.0 Wildlife shows and tricks

For time immemorial, the need to attract visitors is a concern for zoos rather than places of learning and science. Though some authors blame the zoos for the creation of these images, Fernandez, et al. (2009) argues that attracting visitors is an inevitable function of the zoos. Use of animals in animal shows is counter-educational, as it gives the public a misleading impression of the true nature of animals. The potentially mixed message of education and entertainment is illustrated where most elephant exhibits and shows [in zoos] offer abundant zoological information, yet the animal routines resemble a circus show. (Carr & Cohen, 2011).

In 2009 and 2010, following an investigation into the welfare standards at thirty-nine zoos in Peninsular Malaysia, Animal Concerns Research and Education Society (ACRES) identified that a major concern at the Danga Bay Petting Zoo was that animals were made to perform unnatural behaviours in a circus-style animal show. This show demeaned and trivialised the animals, and was thus completely in contravention of the World Association of Zoos and Aquariums (WAZA) Code of Ethics and Animal Welfare mentioned earlier. It was reported that an elephant is involved in the show, where the elephant hit a football with a cricket bat, played the harmonica and bowed to the audience. The show also involved a Malayan sun bear who rode a bicycle, and another bear walked on his hind legs around the ring. Apart from the sun bear, a pig-tailed macaque turned somersaults on the back of a pony cantering around the ring, and also stood on the pony holding a flag. A tiger was also made to balance on two narrow ropes positioned high off the ground and to balance on his hind legs.

Subsequently, Regulation 13(1) of the Regulations 2012 stipulated that if zoo management wants to have wildlife show activity in the zoo, it must be approved by the Director General with a written application. In approving the application, the Director General must take into account Regulation 13(2); (a) the performance ought to be based on the natural behaviour of the wildlife itself; (b) does not involve any element of force conducted to the wildlife; (c) does not cause distress, pain or fear to the wildlife. For example; in Zoo Negara, animals in the zoos are trained to perform tricks which are not within their normal behaviour before the enactment of the WCA 2010, however, after the enactment of WCA 2010 and also the Regulations 2012, animals are no longer permitted to do acts that are outside of their natural behaviour. Under Regulation 13(3) of the Regulations 2012, the wildlife that is used for performances in zoos must not be in a transfer cage for more than one hour. The penalty for persons who contravene the provisions in these regulations shall be guilty of an offence and if conviction, they are to be found liable, they are to be punished with either a fine not exceeding RM100,000

or imprisonment for a term not exceeding five years or both. The elimination of wildlife shows in the operation of the National Zoo is hoped to be able to enhance the idea of animal's right amongst visitors—animal's freedom from physical and thermal discomfort.

5.0 Transparent Termination of Zoos

The first zoo which license has been terminated after the coming into force of the Wildlife Conservation Act 2010 is the Saleng Zoo, in Johor. During the raid which took place in 2011, 60 animals have been removed from the zoo to Malacca Zoo due to the animals being kept in atrocious and pitiful conditions that were contrary to the international and local zoo guidelines. Numerous warnings and compounds had been issued previously after the zoo was found to have violated several regulations under the Protection of Wildlife Act 1972 such as not having a veterinarian to ensure that the animals are well kept and healthy and the unsuitability of the cages. The health conditions of animals being kept in their captivity were also questionable. Thus the animals were seized under the new Wildlife Conservation Act 2010 (section 94).

Further, in 2012, from 45 premises which are dealing with wildlife comprising the area of Peninsular Malaysia and Labuan, six premises have been closed by Department of Wildlife and National Parks (PERHILITAN) Peninsular Malaysia due to their non-compliance with Wildlife Conservation (Operation of Zoo) Regulations 2012. Those are Lye Huat Garden, Kedah; Taman Burung Kuala Krai, Kelantan; Countryview Recreation, Pahang; PD Mini Zoo, Negeri Sembilan; Taman Kuang, Terengganu and Mines Wonderland, Selangor.

Among the list of premises, Mines Wonderland has ceased its operation because it failed to comply with the regulation. However, the management was still in charge of the keeping of the animals as they have valid licenses and permits. Based on a report dated September 2013 which was two years after the closure of the Mines Wonderland animal park, a number of animals under the care of Wonder Snow Sdn. Bhd. were suffering from a gross lack of care in which the whole place was a picture of abandonment, with the animals looking malnourished and thin, and their cages in immediate need of repair. A notice on the gates of the park dated 1st Sept 2011, announced the closure of the facility as part of efforts to create an "ideal" environment for the animals, however, no changes were made. As of now, the licences and permits had expired and no renewal was made thus the animals were transferred to the Taiping and Malacca Zoo (Panirchellvum, 2013). Notices of terminations and reasons of termination which are placed in zoos serve as an example to visitors as regards to the importance of conservation of animals and their welfare.

6.0 Misbehaviour of visitors

With regards to the aspect of internal management, to ensure visitors acted in accordance to its rules and regulations, control measures are taken by zoo administration in the form of providing such signage at all visible, strategic locations especially anywhere near animal cages. In dealing with any misbehaviour of tourists towards animals kept within the captivity of a zoo, the most common approach to handle these disputes would be through verbal warnings by the zoo operators. In situations where the premise is a petting zoo, the rangers in charge of a particular station should emphasise giving oral guidelines and advice to regulate tourists' behaviour while they are interacting directly with wildlife animals.

Thus, in either regular zoo or petting zoo, the officers in charge in most situations are in no position to take many further actions to resolve such disputes of mistreatment of animals other than to impose oral warnings or to expel tourists out of the compound. As a result, many visitors do not take those notices seriously. In an interview with the management of the National Zoo, two foreign tourists were reported to have encroached on a partition of giant turtles in the zoo and destroyed its shells, and as a result, they were expelled out of the zoo's compound by the officers of the zoo with the help of the police. As Ahmad, Abdullah and Jaafar (2012) posit that encroachment by the local community is harmful for the biological conservation of the wildlife, zoo visitors are also entitled to hold such responsibilities as they interact with the wildlife animals in the centre.

However, in some instances, strict action is taken against visitors, and this sets a good example to other visitors. In more extreme cases, the most appropriate way would be to escort the tourists out of the zoo or to ask for assistance from the police. However, zoos are not vested with any authority to impose penalties towards violations committed by visitors and when such situation arises, and in uncontrolled conditions, interference from the Department of Wildlife and National Parks Peninsular Malaysia (PERHILITAN) is required. Concerning the WCA 2010, penalties will be imposed under Section 86(1) of the said Act with regards to the infliction of cruelty towards animals whereas Section 88 is applicable towards provocation of wildlife. In the management of Taman Negara, according to the PERHILITAN annual report for the year 2013, ten encroachers in total were arrested for the particular year. One of those was the arrest of 3 intruders (4 Malays and 3 Chinese) for illegally entering and fishing in Taman Negara Pahang. Besides, there was an arrest involving 3 Singapore nationals who were allegedly collecting insects inside the National Park and were compounded RM 3,500 per person under the Taman Negara (Pahang) Enactment 1939.

7.0 Cruelty against Animals

Some zoos used animals for a public photography session, which posed welfare concerns for the animals, as well as physical harm risks to zoo visitors and the potential for disease transfer between animals and humans because of close or direct contact. Some animals were handled with excessive force or in a cruel way. For example in 2009 and 2010, following an investigation into the welfare standards at thirty-nine zoos in Peninsular Malaysia, Animal Concerns Research and Education Society (ACRES) identified that at Danga Bay Petting Zoo, a tiger used for photography sessions was handled forcefully and beaten around the face with sticks to make him pose for

photographs. Malayan sun bears used in the circus-style show at Danga Bay Petting Zoo were handled roughly and appeared to be in pain from tightropes tied around their delicate muzzles which were continually being pulled on. Furthermore, the keepers were repeatedly seen hitting the tiger in the face and on the body with sticks to get him to 'pose' with visitors, which is of course highly detrimental to the tiger's welfare. Such harmful practices in zoos serve a terrible example to visitors and are contrary to the illustration of a zoo as the centre of conservation and education.

In 2009 and 2010, following an investigation into the welfare standards at thirty-nine zoos in Peninsular Malaysia, Animal Concerns Research And Education Society (ACRES) identified that in addition to the macaques housed in cages, the Saleng Zoo also had two pig-tailed macaques who were chained near to the entrance by short chains around their necks, approximately 1.5m and 2m long. These chains severely restricted their movements. These macaques had no shelter, no private areas and no enrichment. Although they could see each other, they had no physical contact with each other, which is highly detrimental to social animals. Chaining animals in such a way are highly unfavourable to their welfare, and no animals should be kept in this way. Visitors could easily touch these macaques. In Danga Bay Petting Zoo, the Asian elephant could barely move due to the restrictive chains and repeatedly swayed from side to side. These activities are indeed in contradiction with section 86(1) of the WCA 2010 with regards to the infliction of cruelty towards animals. With the enforcement of the WCA 2010, such cruel approach is hoped to be eliminated from the practices of the zoos, and the change of approach is expected to enable visitors to be able to be more alert about the right attitude towards wildlife animals.

8.0 Direct contacts and Feeding of Animals

In 2009 and 2010, following an investigation into the welfare standards at thirty-nine zoos in Peninsular Malaysia, Animal Concerns Research And Education Society (ACRES) identified that for 75.4% of the enclosures, members of the public could easily come into contact with the animals. Members of the public were observed feeding, touching and harassing animals. This is likely to be very stressful for the animals, and physical contact between animals and visitors could lead to diseases spread both ways. The lack of adequate stand-off barriers to prevent contact between visitors and the animals was a widespread problem. In a survey conducted in the Saleng Zoo, visitors could easily touch all of the primates through the wire mesh or bars of all cages, or could easily breach the barriers in place. This would be against the Malaysian Standards Zoo Guidelines (Management of Zoos) (Guideline 1.43.51-1.43.56).

In many zoos, there were not enough staff members to monitor visitor behaviour. Unregulated feeding of the animals and uncontrolled by visitors not only could impose severe health implications for the animals but indirectly leads to the insensitivity of visitors towards the cautions needed while feeding animals. This would be against the Malaysian Standards Zoo Guidelines (Management of Zoos) (Guideline 1.43.25) where feeding of food can only be allowed where it is controlled, and the type and quantity must be approved by the veterinary. As Ahmad, Abdullah and Jaafar (2012), in their study, conjectured that the local communities in certain Protected Areas in Malaysia have already understood about the needs to practice supportive activities for the wildlife sake, similar mindset should be applied to zoo visitors. Thus, signs and notices to such effect and the rationale of the prohibition are important to educate them.

9.0 Conclusion

The Captive Animals' Protection Society (CAPS) and other advocates working to oppose the keeping of animals' captive in zoos have long argued that these institutions not only fail to educate children about the natural world but, in fact, have a negative educational impact. In a 2014 report over 2,800 children surveyed following visits to the London Zoo, the majority demonstrated no positive learning outcomes at all (Jensen, 2014). Indeed, many children were deemed to show not just a lack of learning, but a negative learning outcome. The study considered learning outcomes for pupils who were part of either visit guided by a member of educational staff from the zoo or unguided visits. Only 38% of children were able to demonstrate positive learning outcomes. In comparison, the 62% of children were deemed to show no change in learning or, worse, experienced negative learning during their trip to the zoo. Acknowledging the fact well maintained and organised management and enormous appreciation towards animals in centres are pulling factors for repeated visitation in urban recreation areas, provisions on legislative measures to that effect are certainly timely. Besides the physical characteristic, the values and benefits of the areas such as peaceful and quiet, relieve stress and can get close to nature are also associated with their feeling of satisfaction too. Other pulling factors that influenced the visitors' satisfaction towards the natural elements are the maintenance and management of the area.

This paper concludes that although states' regulatory framework such as Wildlife Conservation Act 2010 improves the condition of animals in the Malaysian wildlife tourism, however, improvement of the existing legal framework is not the only solution for better conservation knowledge of visitors and is far from preparing tourists for sustainable tourism in vulnerable tourism sites like the Antarctic. The information, education and public relation departments of zoos should be more specific to their goal to educate people, to spread awareness, to facilitate the visitors, to foster the concept of captive breeding as well as the rehabilitation of destructed natural environment of the endangered species. Among others, innovative approach such as observing animals scientifically by performing picture-story shows (Yamahashi et al., 2014) and the like should be considered. Acknowledging that mothers show a more prominent role in the family decision-making process as mothers are the ones who start the discussion, gather information up to take action in technical aspects (Soerjoatmodjo & Kaihatu, 2016) therefore, the attempt to influence mothers to continue bringing their children to the zoos is important as part of education which young generation may not aware of the importance, as zoos has been identified as an element which increases tourism competitiveness.

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References

- Ahmad, C. B., Abdullah, J., & Jaafar, J. (2012). Community Activities Around Protected Areas and the Impacts on the Environment at Krau Wildlife Reserve, Malaysia. *Procedia - Social and Behavioral Sciences*, 68, 383-394.
- An Investigation Into The Welfare Standards of Zoos In Malaysia, Animal Concerns Research And Education Society (ACRES). (2010). Retrieved from <http://www.zoocheck.com/WpContent/Uploads/2015/06/Malaysiazooreport2010.Pdf>
- Aziz, H. A., & Rasidi, M. H. (2013). Study of Habitat Indicator: Openness and Complexity Level in the Parks of Putrajaya. *Procedia - Social and Behavioral Sciences*, 85, 332-344.
- Bakar, A. A., Osman, M. M., Bachok, S., & Ibrahim, M. (2016). Investigating Rationales of Malaysia Quality of Life and Wellbeing Components and Indicators. *Procedia - Social and Behavioral Sciences*, 222, 132-142.
- Bricher, P.K., Lucieer, A., Woehler, E.J., 2008. Population Trends of Adélie penguin (*Pygoscelis adeliae*) Breeding Colonies: a Spatial Analysis of Snow Accumulation and Human Activities. In *Polar Biology Journal*, Vol. 31, pp. 1397–1407.
- Carr, N. and Cohen, S. (2011). The public face of zoos: Images of entertainment, education, and conservation. *Anthrozoos*, 24(2), 175-189.
- Hanafiah, M. H., Azman, I., Jamaluddin, M. R., & Aminuddin, N. (2016). Responsible Tourism Practices and Quality of Life: Perspective of Langkawi Island communities. In M. Y. Abbas, A. F. I. Bajunid, & S. Thani (Eds.), *Asean-Turkey Asli QoL2015: Aicqol2015* (Vol. 222, pp. 406-413).
- Idlifitri, S., & Mohamad, N. H. N. (2012). Role of Ornamental Vegetation for Birds' Habitats in Urban Parks: Case Study, *Procedia - Social and Behavioral Sciences*, Volume 153, 16 October 2014, Pages 666-677
- Jensen, E., 2014, *Evaluating Children's Conservation Biology Learning at the Zoo*, *Conservation Biology*, Vol. 28, No. 4, 1004-1011
- Kagan, R. L. (2013). Challenges of Zoo Animal Welfare—The Path From Good Care to Great Welfare: Keynote. *Journal of Applied Animal Welfare Science*, 16(4), 381-381.
- Mei, N. S., Wai, C. W., & Ahamad, R. (2016). Environmental Awareness and Behaviour Index for Malaysia. *Procedia - Social and Behavioral Sciences*, 222, 668-675.
- Mohit, M. A. (2014). Present Trends and Future Directions of Quality-of-Life. *Procedia - Social and Behavioral Sciences*, 153, 655-665.
- Panirchellvum, V., "Mines Wonderland animals suffering from gross lack of care", *The Sun Daily*, 22 September 2013
- Soerjoatmodjo, G. W. L., & Kaihatu, V. A. M. (2016). Family Decision-Making Process on Cultural Heritage Appreciation in Akhir Pekan @ Museum Nasional. In M. Y. Abbas, A. F. I. Bajunid, & S. Thani (Eds.), *Procedia - Social and Behavioral Sciences*, Vol. 222, pp. 539-547.
- Tin, T., Fleming, Z. L., Hughes, K. A., Ainley, D. G., Convey, P., Moreno, C. A & Snape, I. (2009). Impacts of local human activities on the Antarctic environment. *Antarctic Science*, 21(1), 3-33.
- Yamahashi, C., Yamaguchi, E., Inagaki, S., Okuyama, H., Tajima, J., Horita, A. & Bando, G. (2015). Supporting Zoo Visitors' Scientific Observations through the Picture-story Show. *Procedia - Social and Behavioral Sciences*, 167, 85-90.