

The motivation, pro-environmental behaviour and attitude of birdwatchers in mainland China and Hong Kong

Zhang Yuanyuan¹ & Tan Lei²

Supervised by Lewis T.O. Cheung² and Lincoln Fok¹

¹ Department of Science and Environmental Studies, The Hong Kong Institute of Education

² Department of Geography, The University of Hong Kong.

The Motivation, Pro-environmental Behaviour and Attitude of Birdwatchers in Mainland China and Hong Kong

Zhang Yuanyuan, Department of Science and Environmental Studies, The Hong Kong Institute of Education

Tan Lei, Department of Geography, The University of Hong Kong

Lewis T.O. Cheung, Department of Geography, The University of Hong Kong

Lincoln Fok, Department of Science and Environmental Studies, The Hong Kong Institute of Education

Department of Geography, The University of Hong Kong

ABSTRACT

This study assesses the pro-environmental attitude, behaviour and motivation of the birdwatchers at the bird-watching hotspots in China. A face-to-face questionnaire survey was conducted in 20 bird-watching hotspots in HKSAR, Guangdong and Jiangsu province to collect views among the citizens in the mainland and Hong Kong.

Results indicated that both Hong Kong and mainland Chinese bird-watchers demonstrated a positive environmental attitude. However, the behaviour of mainland Chinese birdwatchers was less appropriate than their Hong Kong counterparts, as measured in accordance to the code of conduct of international bird watching associations. In term of motivation, the mainland birdwatchers tend to be motivated by achievement and affiliation as are likely to pursue a better performance and enjoy more interaction with other people. In contrast, the Hong Kong birdwatchers are motivated by appreciation that they wish to seek the sense of peace and belonging.

Keywords: Birdwatcher; pro-environmental attitude; behaviour; motivations; China

Tourism, Leisure and Global Change, volume 1 (2014), pages CUHK-141 to CUHK-160
Presentation at the *International Conference on Sustainable Tourism and Resilience in Urban Environments*

23-25 April 2014, The Chinese University of Hong Kong

Copyright: CC: NC-BY-ND-SA

Outline

- Bird-watching in China
- Background of the study
- Objectives
- Methodology
 - Study areas
 - Questionnaire design
 - Sampling
- Results: comparison between mainland and HK
- Implications

Bird-watching in China

Hong Kong

- In 1957, Hong Kong Bird Watching Society established which has more than 1,900 members now
- 450 bird species recorded
- (Hong Kong Bird Watching Society, 2014; Cheng et al., 2013)

Mainland China

- In 1980s, bird-watching was firstly introduced by foreign tourists
- By 2010, China has a total of 36 local bird-watching societies and 20,000 birdwatchers
- More than 1300 bird species

Background

- Bird-watching is becoming popular in China.
- Would the rising of bird-watching tourism in China harm the ecological environment? Some concerns:
 - Lack of related regulations or guidelines for tourists;
 - Most of the bird-watching hotspots are wildlife habitats or even environmentally sensitive sites.
- The direct environmental impact of bird-watching is difficult to measure. Instead, we can predict the impact by
 - → measuring tourists' attitude and behaviour
 - → understanding their motivations



Objectives

- 1. To assess the pro-environmental behaviour and attitude of birdwatchers in mainland and Hong Kong;
- 2. To understand to motivations of birdwatchers in mainland and Hong Kong;
- 3. To compare the attitude, behaviour and motivations between birdwatchers in mainland and that of Hong Kong.

Study areas

- Hong Kong SAR
- Mainland (Guangdong & Jiangsu Province)
 - 20 bird-watching hotspots selected in these three provincial administrative regions of China
- Similar background of these three regions:
 - 1. be located in coastal area of South and East China
 - 2. with a certain scale of bird-watching population
 - have registered bird-watching associations, e.g.:
 - Hong Kong Bird Watching Society
 - Shenzhen Bird Watching Society (the first bird watching society registered in mainland China)
 - Jiangsu Bird Watching Society & Jiangsu Wild Bird Society

Questionnaire design

- 1. Measuring the **pro-environmental attitude**:
 - Wildlife Value Orientations Scale (WVO)
 - WVO is used to measure basic belief about wildlife.

(DeRuiter, 2002)

1. Measuring pro-environmental attitude (Wildlife Value Orientations)

Category	Item (* reverse coding)	Scoring scheme
Wildlife use	A1. If animal populations are no threatened, human could make use of wildlife to improve the quality of our lives. *	1-5 points from <i>strongly disagree</i> to <i>strongly agree</i>
	A2. All activities that harm wildlife should be avoided, no matter how much human can be benefit.	
	A3. For the sake of economic benefit or health, we could eat some wild animals temperately. *	
	A4. Human should not kill or eat wildlife for our own interests.	
Wildlife rights	A5. Comparing with the rights of human, the rights of wildlife is less important. *	
	A6. Human rights and wildlife rights are equally important.	

(DeRuiter, 2002)

2. Measuring Pro-environmental behaviour

Category	Item (* reverse coding)	Scoring scheme
Self-evaluated	B1. Make changes to the habitat *	1-5 points based on frequency
	B2. Keep distant from the habitat	
	B3. Attract birds or interact with them *	
	B4. Share the news of occurrence of rare birds with the public *	
	B5. Obey the law	
	B6. Intervene or report unethical behaviour	
	B7. Submit record to related association	
Observed (within 5 minutes before the survey)	O1. Frequency of using flashlight *	1-5 points
	O2. Minute last for making a loud sound *	
	O3. Wear bright color clothes *	No=1, Yes=5
	O4. Group size *	1-5 points

(Sources: American Birding Association; The Royal Society for the Protection of Birds; Birdlife Australia; Bird Observation & Conservation Australia; HK Bird-watching Society; BirdFellow; Taiwan Bird Count; The royal photographic society; North American Nature Photography Association; Australian Birdlife)

3. Classification of **Motivations** for bird-watching

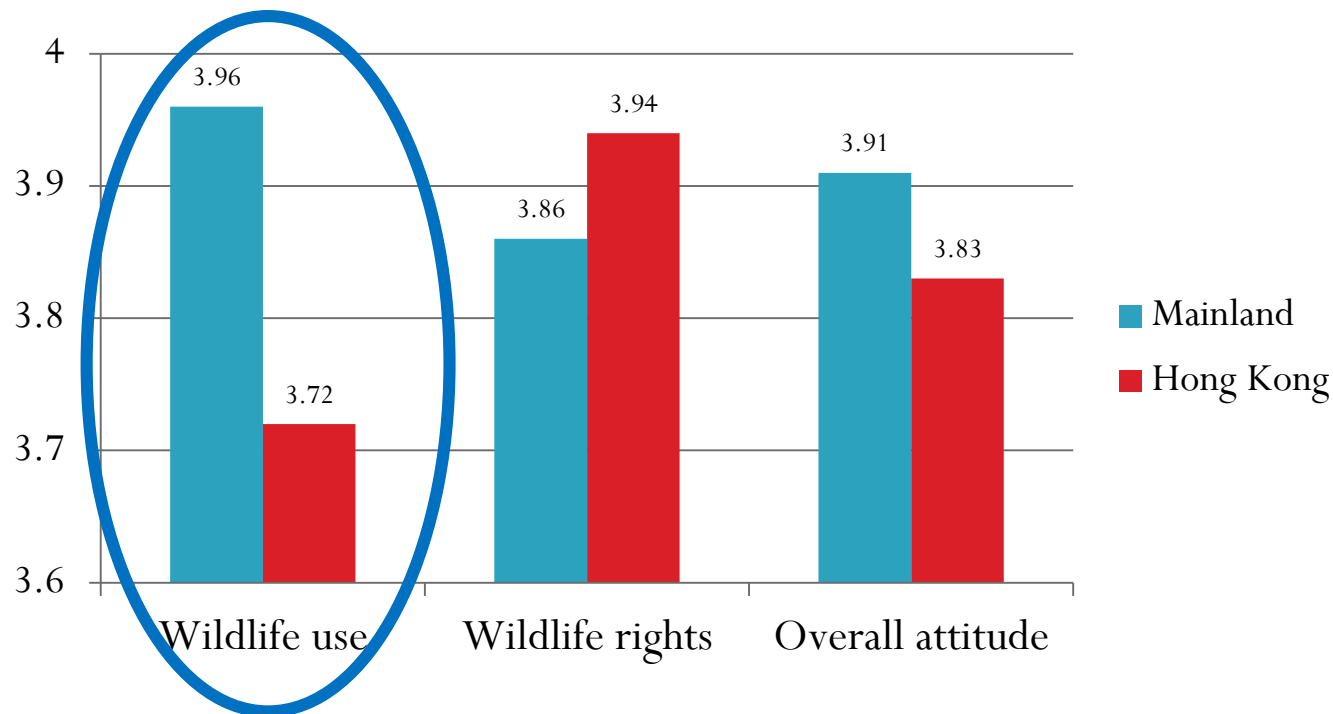
	Items	Scoring scheme
Affiliative	M1 Be considered as a good birdwatcher	1-5 points from <i>very unimportant</i> to <i>very important</i>
	M2 Build friendships with other birdwatchers	
	M3 Meet people who share my interests	
	M4 Compete with other birdwatchers	
	M5 Help others develop their skills	
	M6 Contribute to society's general knowledge and understanding of birds	
Achievement	M7 Expand my knowledge of birds	
	M8 Challenge and improve my bird-watching skills and abilities	
	M9 Improve my photographing	
	M10 See new or rare bird species	
Conservation	M11 Contribute to the conservation of birds	
	M12 Learn about the natural environment	
Appreciative	M13 Enjoy the natural environment	
	M14 Take natural photos	
	M15 Get away from everyday problems and be alone	

Sampling

- Questionnaires were randomly distributed to identified tourists in the bird-watching hotspots.
- Respondents were asked whether they are coming for bird-watching before the investigation.
- 205 valid questionnaires:
 - Mainland: 107
 - Hong Kong: 98



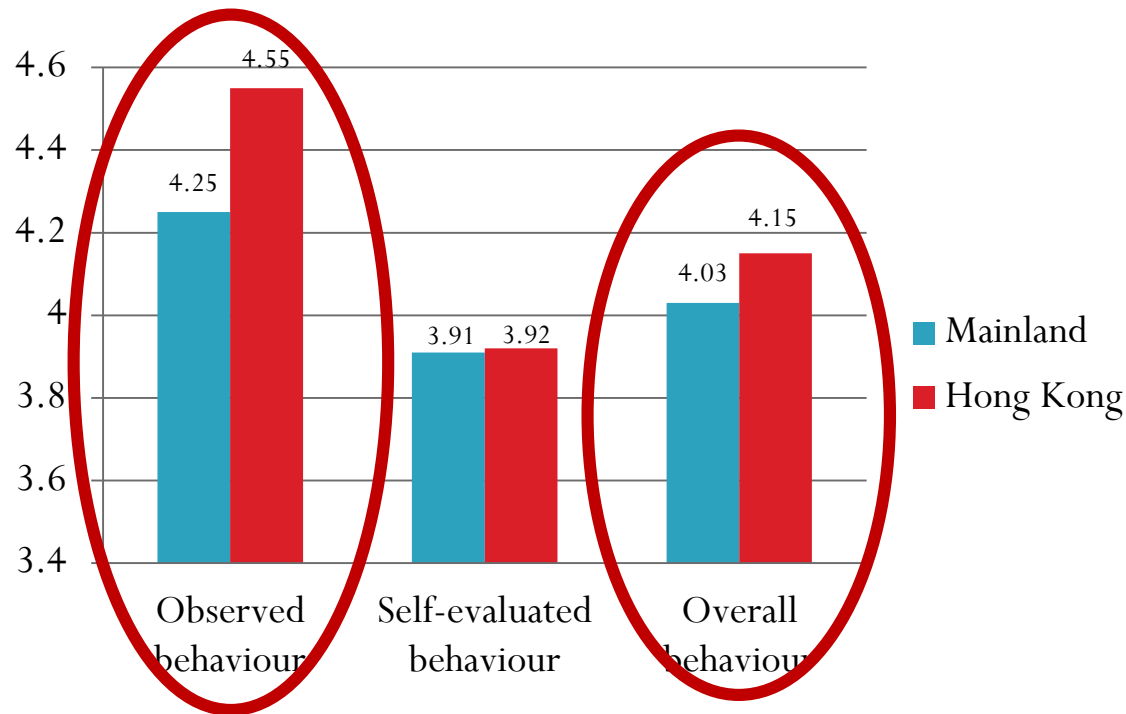
Results --- HK vs Mainland: Pro-environmental attitude



- → Mainland birdwatchers has a more pro-environmental attitude towards wildlife in terms of ‘Wildlife use’.
 - Mann-Whitney Test Sig. (two-tailed): 0.022
 - Human should not make use of wildlife for own interest.

HK vs Mainland:

Pro-environmental behaviour



- → Overall, birdwatchers in HK score higher in pro-environmental behaviour .
 - Mann-Whitney Test Sig. (two-tailed): 0.012
 - Especially in 'Observed behaviour' (Sig. 0.001)

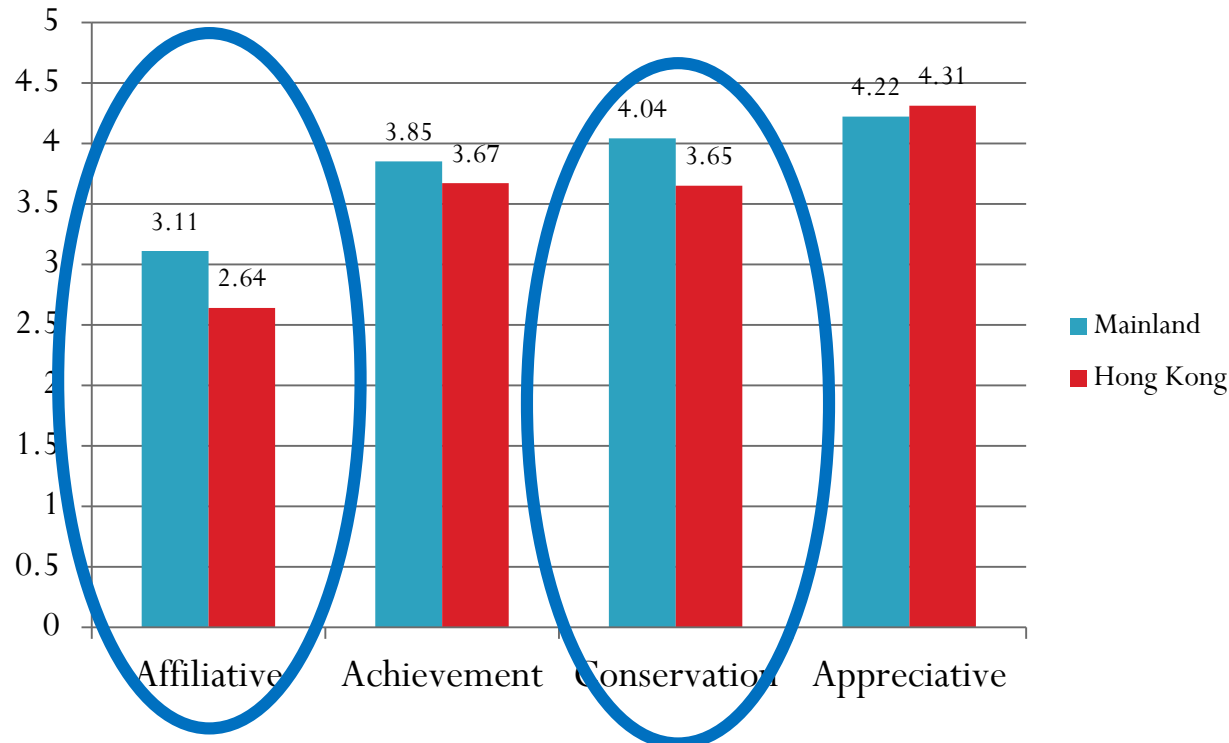
HK vs Mainland:

Pro-environmental behaviour

- But the performance of birdwatchers in mainland and HK is diverse in different items:

Mean (Higher = Better)	Mainland	Hong Kong	Mann-Whitney Sig. (two-tailed)
O3.Wear bright color clothes *	4.24	3.73	0.044
O4.Group size *	2.86	4.62	0.000
B1.Make changes to the habitat *	4.26	4.74	0.000
B2.Keep distant from the habitat	4.21	4.54	0.013
B3.Attract birds or Interact with them *	4.24	4.70	0.002
B6.Intervene or report unethical behaviour	3.80	3.16	0.000
B7.Submit record to related association	2.23	1.51	0.000

HK vs Mainland: Motivations



- Mainland birdwatchers score significantly higher than HK's in 'Affiliative' and 'Conservation' (Mann-Whitney Test Sig. 0.000 and 0.001 respectively)

Implications

- For bird-watching in mainland
 - Introduce regulations and guidelines to regulate the activity especially in:
 - Limiting the group size
 - Conserving the habitat and species
- For bird-watching in HK
 - More education and promotion on:
 - Encouraging more submission of bird-watching report
 - Encouraging birdwatchers to intervene unethical behaviour
 - Avoiding bright clothes

References

- American Birding Association. (2013). Code of Ethics: Principles of Birding Ethics. Retrieved from <http://www.aba.org/about/ethics.html>
- Australian Birdlife. (n.d.). Photographers' Code of Ethics. Retrieved from <http://www.epnrm.sa.gov.au/Portals/4/Coast%20&%20Marine/MAGcodeofethics.pdf>
- Birdlife Australia. (2012). Ethical birding guidelines. Retrieved from <http://www.birdlife.org.au/documents/POL-Ethical-Birding-Guidelines.pdf>
- BirdFellow (offers web-based birding services in US). Retrieved from http://www.birdfellow.com/about/birding_ethics
- Bird Observation & Conservation Australia. (2007). Code of Birding Ethics. Retrieved from <http://www.hboc.org.au/resources/documents/Code%20of%20birding%20Ethics%20FINAL%20sept07.pdf>
- Cheng, Y., Wang, J., He, X., & Ma, Z. (2013). Present Status and development of birdwatching in mainland China. *Journal of East China Normal University (Natural Science)*, 2, 63-74. doi: 10.3969/j.issn.1000-5641.2013.02.008.
- DeRuiter, D. S. (2002). A qualitative approach to measuring determinants of wildlife value orientations. *Human Dimensions of Wildlife*, 7(4), 251-271.
- HK bird watching Society. (2007). Code of Conduct for Birdwatching and Photography. Retrieved from <http://www.hkbws.org.hk/BBS/viewthread.php?tid=2663&extra=page%3D1>
- HK Bird Watching Society. (2014). Retrieved from http://www.hkbws.org.hk/web/eng/index_eng.htm
- McFarlane, B. L. (1994). Specialization and motivations of birdwatchers. *Wildlife Society Bulletin*, 22(3), 361-369.
- North American Nature Photography Association. (n.d.). Principles of Ethical Field Practices. Retrieved from <http://www.nanpa.org/docs/NANPA-Ethical-Practices.pdf>
- Taiwan Bird Count. (1998). Notice for Bird-watching. Retrieved from http://tbc.yam.org.tw/97_need2.htm
- The Royal Photographic Society. (2007). Nature Photographers' Code of Practice. Retrieved from <http://www.wildlifeupclose.co.uk/codeofconduct.html>
- The Royal Society for the Protection of Birds (UK). (n.d.) The Birdwatchers' code:. Retrieved from <http://www.bto.org/sites/default/files/u10/downloads/taking-part/health/bwc.pdf>

Thank you! 😊
