Monitoring on the status of Baer's Pochard in Pyu Lake and Paleik Inn, central Myanmar



Biodiversity And Nature Conservation Association

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Front Photo Caption: Bird watching at Pyu Lake, Mandalay Region.

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Summary

There are two activities of Baer's Pochard conservation in Pyu Lake and Paleik Inn and its environ, Mandalay Region, central Myanmar. Monitoring on the status of Baer's Pochard and other migratory water bird species was carried out in Pyu Lake and Paleik Inn in December 2016 and January and February 2017. One pair in Paleik Inn in Jaunary and two individuals in Pyu Lake in February were recorded. Community meeting was carried out in Pyu village on February 2017. A total of 50 participants from Pyu village attended, discussed and laid down three outline of conservation activities for Baer's Pochard and other migratory waterbird species in Pyu Lake.

The results from this survey and meeting provide information for local and national stakeholders on the broader importance of the conservation of wetlands for the benefit of people, due to the economic and social benefits they provide. By incorporating in this meeting, sustainable management pathways for wetland sites across Myanmar could be achieved.

1. INTRODUCTION

Population numbers of the Baer's Pochard *Aythya baeri* have declined drastically in recent years (Wang *et al.* 2012, Hearn *et al.* 2013), the global population is estimated to be 150-700 mature individuals (BirdLife International 2016) or 250-1,000 birds in total (Wetlands International 2016). In the 1990s, a number of countries in southern Asia, particularly Thailand and Bangladesh, supported hundreds of wintering birds, but in recent years the number of observations has dropped to only a few birds wintering annually.

Myanmar also previously held an important wintering population of Baer's Pochard, but no detailed information has been available since 2004. This species has been protected under national legislation by Ministry of Forestry since 1994. Within Myanmar, there are few protected wetlands, especially for the Baer's Pochard. Of the wetlands within Myanamr, only Indawgyi Lake Wildlife Sanctuary and Moeyungyi Wetland Wildlife Sanctuary are recognised as Important Bird & Biodiversity Areas (IBAs) for migratory waterbird species.

In 2016, BANCA conducted an extensive survey in central Myanmar and found that there are still sites with good potential as important wintering ground for the Baer's Pochard. Particularly at the lake of Pyu Kan near Mandalay City where at least 12 Baer's Pochards were observed alongside with 5,000 plus other waterbirds during surveys in late January. Information on the numbers of migratory birds and the status of quality and quanity of freshwater lakes within central Myanmar is still weak. That is why monitoring on the status of migratory waterbirds, with particualr focus on globally threatened species, is of such importance within the lakes of central Myanmar. The objectives of this survey were (1) Stimulate active public involvement in research and conservation of Baer's Pochard, (2) Document the current abundance and distribution of Baer's Pochard at wetland areas in central Myanmar and (3) Assess the threats facing migratory waterbirds in central Myanmar.

2. AREAS SURVEYED AND SURVEY TIMING

Based on the past records of Baer's Pochard in central Myanmar, two study sites in Pyu Lake and Paleik Inn were selected to conduct monitoring survey for the status of Baer's Pochard. To cover the information of this species in these areas, water bird survey was conducted in small lakes such as Chaungmanet Dam and Tha-ngedaw Inn, near Pyu Lake and Wanbe Inn, Lettaung Inn, near Paleik Inn. Assesment on the presence and absence of waterbird species as well as population of particular species within these habitat was conducted. (Figure 1)

The survey was started in December 2016 because the last survey of Baer's Pochard was started in January 2016 and missed in December 2015. As such the survey was continued in Jaunary and February 2017. The community meeting was held in Pyu village near Pyu Lake to share observation of Baer's Pochard and their global status and to get knowledge of the bird conservation in local communities.

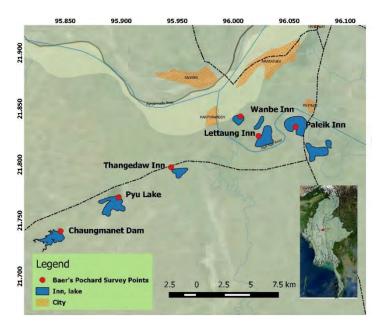


Figure 1. Location of study sites in central Myanma

Participants

- 1. Lay Win, BANCA
- 2. Thet Zaw Naing, WCS
- 3. Saw Moses, BANCA
- 4. Ngwe Lwin, FFI
- 5. Thiri Sandar Zaw, BANCA
- 6. Min Thein Htet, BANCA
- 7. Richard Hearn, WWT
- 8. Thiri Dae We Aung, BANCA

3. SURVEY METHODS

Survey time: The survey was started on December 2016 to monitor the status of Baer's Pochard in Myanmar The survey was continuded on January and February 2017.

Data Collection: We collected population and species composition in each study site by using point count method on foot. To promote knowledge amongst local communities of the importance of conservation of Baer's Pochard and other migratory waterbird species within Pyu Lake, community awareness training and scoping workshops were conducted in Pyu Kan Village.

Community Meeting: The facilitator used the following methods in order to obtain the expected results within the limited timeframe;

- 1) Information Sharing: Presentations were conducted in order to effectively communicate the process of protected area management planning
- 2) Group Discussion: Each group is to identify 5 themes/issues within the management program that they have queries over. These different questions are prepared and shared amongst other groups. See below for information on how groups were formed.
- 3) Two-way discussion was an approach used in order to collect information from participants and provide them with quality information. Individual presentations and explanation sessions were conducted during the workshop.

4. RESULTS

4.1 Baer's Pochard and other waterbird observations

Comprehensive survey on the status of Baer's Pochard was started in Pyu lake and Paleik Inn and its environ such as Taung ta man Inn, Wun Be Inn, Tha-ngedaw which are potential sites for migratory water bird species on December 2016. A total of 4524 individuals of 36 different water bird species were recorded in Pyu Lake. Although Baer's Pochard was not recorded in these areas but some migratory water bird species such as 280 individuals of Northern Pintail, 18 individuals of Garganey, 24 individuals of Common Pochard and 40 individuals of Ferruginous Pochard were recorded in Pyu Lake. In Paleik Inn, a total of 711 individuals of 27 water bird species were recorded. In Jaunary 2017, BANCA joined Asian Water Bird Survey which was organized by Mandalay University and did bird survey in Pyu Lake and Paleik Inn. A total of 2816 individuals of 32 water bird species were recorded in Paleik Inn. One pair of Baer's Pochard was recorded in Paleik Inn. In Pyu Lake, a total of 5278 individuals of 26 species were recorded.

In February 2017, the survey was conducted in Pyu Lake and Paleik Inn. A total of 2645 individuals of 29 species of water bird species were recorded in Paleik Inn and 3795 individuals of 35 speceis were recorded in Pyu Lake. Two individuals of Baer's Pochard was recorded in Pyu Lake.

Table (1) Population and species composition of waterbird species in Pyu Lake and Paleik Inn

		Pyu Lak	ke			Pale	ik Inn	
			St	tatus			Stat	us
	Total	Total			Total			
Month	species	indivi:	(M)	(R)	species	Total indivi:	(M)	(R)
Dec-16	36	4524	15	21	27	711	8	19
Jan-17	26	5278	12	14	32	2816	9	23
Feb-17	35	3795	14	21	29	2645	10	19

M= migratory waterbird species, R= resident waterbird species.

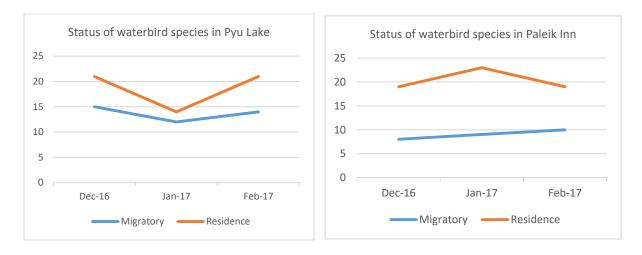


Fig 2. Status of migratory and residence water bird species

According to the above figures, high number of migratory water bird species could be found in December in Pyu Lake but more species of migratory water bird species could be found in February in Paleik Inn. Residence species decreased in January in Pyu Lake but high number of residence species was found in Jaunary in Paleik Inn. According to the finding result, although not too different population of migratory and residence water bird species was found in Pyu Lake, there was a lot of difference between migratory and residence water birds in Paleik Inn.

Complex freshwater lakes in the central Myanmar are important wintering ground for migratory waterbird species. These sites provide not only water bird species but also local villages with water for domestic processes such as cooking, drinking and bathing, as well as water for food as rice cultivation and fishing in dry season.

4.2 Community meeting

4.2.1 Process of community meeting

The following table explains the session conducted in this workshop. All of the sessions were moderated by the staff of BANCA. Altogether 4 participants from BANCA, community representatives of 50 persons have been actively involved.

Time	Title	Respondent
9:00-9:30	Registration	All attendance
9:30-9:45	Opening Speech	Opeining speech was addressed by U Win Bo,head of Pyu village and expressed the importance of conservation in central Myanmar.
9:45-10:15	Presentation expressed that finding of migratory water birds as well as Baer's Pochard <i>(Aythya baeri)</i> in Pyu Lake	U Lay Win (Ornithologist, Biodiversity and nature Conservation Association, BANCA) conducted a presentation especially to know about the globally importance of Baer's Pochard and other migratory waterbird species and the status of wetlands in central Myanmar.
10:15-10:45	Case Study: Spoon-billed Sandpiper at Gulf of Mottama	Daw Thiri Sandar Zaw, Programme Assistant, Biodiversity and Nature Conservation Association (BANCA) shared the good practice of community-based shore bird conservation at the Gulf of Mottama.
10:45-11:00	Video clips of Bird Photos	U Zay Maung Thein, Regional Bird Guide, Mandalay Region delivered

Table 1. Description of the process by session

		video clips of recording bird photos and video.
11:00-11:15	Coffee break	All attendance
11:15-12:00	 Group discussion: Stakeholder selection to form Supportive committee for conservation, Main Threat Migratory waterbird and their habitat conservation. 	 Group from all different background were actively involved in the discussion of migratory waterbird conservationg. The facilitator prepared question sets. All of the discussion outputs were recorded on Flipchart paper for future referral.
12:00 – 12:15	Closing speech	Closing remark was addressed by U Win Bo, head of Pyu village. He also expressed thanks to all invitees including village representatives and BANCA's staff.

4.2.2 Representative group discussion

This session shows the outputs on discussion and presentation of the group work. The group presented information based on the facilitator question sets which were allocated.

Туре с	of Participants:				
2) 3)	Village head villagers BANCA Baligious group				
Discus	4) Religious group. Discussion Heading:				
2.	Who should involve in supportive conservation committee? What are main threats? What should be done for the conservation of Pyu wetland to be sustainable?				
0.					

According to the outline of discussion heading, all participants discussed and the result expressed in the following table.

1. Who should involve in	2. What are the main	3. What should be done for
supportive conservation	threats?	the conservation of Pyu

committee?		wetland to be sustainable?
 General administrator, Civil society organization, Interested persons, School teachers, Fisher folks, Irrigation department. 	 Electric shock fishing at night from other villages, which frighten and scaring the birds. The bank of Pyu Lake narrower. 	 Prevent electric shock fishing, Optimum level of water maintained by preventing siltation. Systematic keeping of bank and maintainance.

5. CONCLUSION

In order to undertake the Baer's Pochard survey in 2016, monitoring on the status of Baer's Pochard in Paleik and Pyu Lake and the community meeting to share information of migratory waterbird species in Pyu Lake was carried out in Pyu village in December 2016, January and February 2017. Comprehensive survey could be carried out on December 2016 because there was no information of Baer's Pochard in Pyu Lake. According to the findings of Baer's Pochard survey in 2016 and 2017, the species could be found in January, February and March in Pyu Lake, Mandalay Region, central Myanmar.

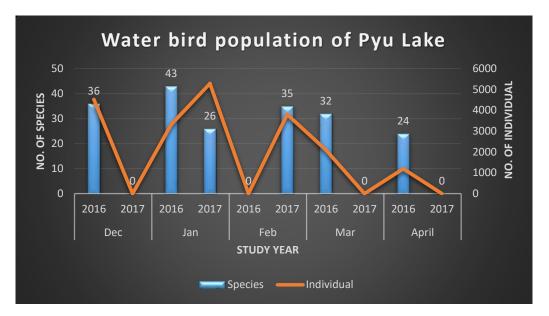


Fig 3. Estimated number of water bird species in wintering season

In Pyu Lake, there was an increase in total number of waterbirds estimated, the highest overall total species and individuals bird was found in January. The lowest overall total species and individuals of birds was found in April.

In January 2017, increase number of waterbird was found but the lesser number of total water birds species was recorded. There was recorded highest number of Common coot (3140 birds), Garganey (755 birds), Lesser Whistling Duck (459 birds), Little Grebe (220 birds) and Eurasian Wigeon (107 birds). Decrease number of total bird species was found as no birds of Tufted Duck, Greylag goose, Comb Duck in 2017 January.

In January 2016, the number of bird population is smaller than 2017 because more than 3000 of Common coot was found in January 2017.

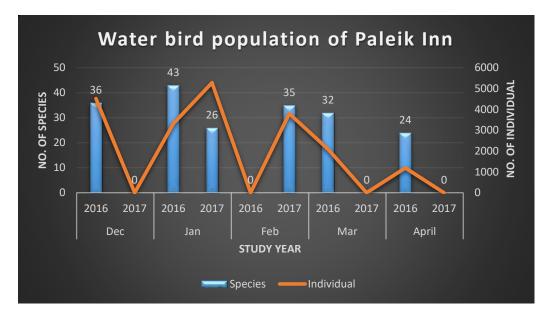


Fig 4: Estimated number of water bird species in wintering season

In Paleik Inn, there was an increase in total number of waterbirds estimated, the highest overall total species and individuals bird was found in January. The lowest overall total species and individuals of birds was found in April.

In January 2017, increase number of waterbird was found but a few number of total water birds species was found. Because there was recorded highest number of Greylag Goose (1087 birds), Asian Openbill (214birds), Lesser Whistling Duck (160 birds) and Black-crownded Night Heron (272). Decrease number of total bird species was found as no bird of Northern Shovelor, Northern Pintail, Spot-billed Duck, Comb Duck and Gadwall in January 2017. According to the survey of 2016 and 2017, it was recorded that more migratory waterbird species decreased in January 2017. More than the previous year (2016) of Electric shock fishing, enroachment of cultivation field, using of pesticide and bird hunting was found in January 2017.

Secondly, the community meeting was undertaken in Pyu village on Februayr 2017 according to the suggestion of the head of Pyu village. There are three villages such as Pyu village, Moe nan chon and Zee Chaung village near Pyu Lake. But almost all of the villagers of Pyu village are using Pyu Lake for agriculture, fishing, bathing and washing. Some of villagers (Moe Nan chon village) use the water of Pyu Lake for agriculture. Therefore, we selected Pyu village for engaging the conservation of Baer's Pochad firstly with community. The community meeting also made to highlight the participatory approach that is to be undertaken in the conservation of migratory waterbird species and their habitat. Despite encouraging levels of participation from most important stakeholders, it was noted that poor awareness in wetland and species conservation in attended participants and very few interested person in conservation participated the meeting. Attendance from this village needs to be encouraged for future workshops in order to increase their involvement.

As indicated by the results of discussions during the meeting, a supportive committee needs to be developed, based on geographic and social capital. During the process of conservation of Baer's Pochard and migratory waterbird species, it will be important to obtain information from these committees on how to tailor the conservation plans to make them more effective. The main threat to the Pyu Lake was identified as electric shock fishing at night from other village and reducing the water body of the Pyu Lake. The key solutions will include posting of notice board to avoid electric shock fishing in that area and systematically keep on bank and maintain the lake. Besides, villagers in the area are throwing rubbish into the Pyu Lake that cause the negative impacts to animals depending on the Pyu Lake. That is why it is suggested to promote many time of awareness raising activities and posting of notice board as an important action for the conservation of wetland, Pyu Lake.

6. RECOMMENDATION FOR FUTURE CONSERVATION MEASURES

6.1 Electric Shock Fishing at Paleik Inn

Electric Shock fishing is the most threaten activity on aquatic resources of Paleik Inn wetland area. A total of more than 10 fishers have made electric-shock fishing in day time. Therefore it is very difficult to predict how many fishers have made at night time. This practice leads to depletion of fish resources and may cause extinction for any species in future.

Electric shock fishing lead to affect on countless number of fishes and other aquatic organism also suffer at the same time. Following the results, lake ecosystem may be decreased and reach to worse condition in future.

Recommendation:

- Enforce the law for effective protection around wetland area to stop illegal activities including electric-shock fishing, use of destructive fishing gears, and overexploitation on the extraction of fish resources.
- Regular patrolling should be performed so as to prevent and contain illegal acts for over fishing
- Environmental Awareness program should be promoted for grassroots' level in the region.

6.2 Bird Hunting

In Paleik Inn, wetland-adapted birds spend all or part of their life cycle on the waters or in the wetlands that dive or swim through the water in pursuit of fish prey. Other birds, including most diving ducks and shorebirds seek invertebrate prey in the sediments of the wetlands. Marsh-dwelling passerine birds search for insects on plants or the soil surface. Some seek a variety of mobile prey including fish, crabs, small mammals and other birds.

One of the threats of birds in Paleik Inn is the bird hunting made by local communities for their living. To make the matter worse some tried to trap wildbirds with the use of nets which have serious impacts on the bird population.

According to the "Protection of Wildlife and Protected Areas Law" enacted in 26 October, 1994, the following are the status of protection of birds in Myanmar: The Director General of Forest Department, Ministry of Forestry and Environmental Conservation notify the following endangered bird species as protected bird species by categories:

- Totally Protected Species (50 species)
- Protected Species (43 species), and
- Seasonally Protected Species (13)

Recommendation

- Bird hunting should not be allowed in the Paleik Inn Wetland area.
- Bird survey should be done annually in winter season (open season) to collect up-todate in order to understand the changing habitat for resident as well as migratory birds.
- Publish data on annual counts and regular surveys should be released to all interested persons.

- For capacity building trainings should be organized for all stakeholders pertaining to wildlife conservation matters.
- Workshops should be conducted for local communities concerning environmental education programs.

6.3 Land Encroachment

Land encroachment for cultivation is one of the serious threats for the sustenance of the Paleik Inn. The encroachment of farms usually takes place during the summer time, planting summer paddy.

Recommendation

- Chemical fertilizers should be substituted with organic fertilizer if situations are favorable.
- Educate local communities not to use pesticides and explain the negative impacts on the environment.
- As the water spread of the Paleik Inn is getting smaller, agricultural land should not be extended further horizontally: instead, the farmers should concentrate vertically on the increase of the yield per unit area.

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APPENDICES

Appendix 1.

Attendence list of Baer's Pochard conservation meeting at Pyu village.

No.	Participants	Gender	Occupation
1	U Kyaw Khine	Male	Farmer
2	U Mya Than	Male	Farmer
3	U Than Lwin	Male	Doctor
4	U Thein Tun	Male	Teacher
5	U Aye Win	Male	Farmer
6	U Aung Kyi	Male	Farmer
7	U Kyaw Lin Ko	Male	Farmer
8	U Kyaw Ye Ko	Male	Farmer
9	U Zaw Naing	Male	Farmer
10	U Kung Min	Male	Farmer
11	U Kyaw Naing Oo	Male	Farmer
12	U Aung Kyaw Myine	Male	Farmer
13	U Sein Lin	Male	Farmer
14	U Phoe La Pyae	Male	Student
15	U Куаw Ко	Male	Farmer
16	U Myo Min Tun	Male	Farmer
17	U Moe Thauk	Male	Farmer
18	U Nan Tin	Male	Farmer
19	U Win Boe	Male	Administrator
20	U Tun Swe	Male	Farmer
21	U Kyaw Paing	Male	Farmer
22	U Zaw Win	Male	Farmer
23	U Thar Aung	Male	Farmer
24	U Phae Kyaw	Male	Farmer
25	U Thein TUn	Male	Farmer
26	U Tun Kyine	Male	Farmer
27	U Sein Lin	Male	Farmer
28	Ma Zin Mar Latt	Female	Farmer
29	Ma Moe Wai Thin	Female	Farmer
30	Ma Ei Sandar	Female	Farmer
31	Ma Aye Su Mon	Female	Farmer
32	Ma Yin Yin Oo	Female	Farmer
33	Ma Thin Thin Aye	Female	Farmer
34	Ma Thae Nu War	Female	Farmer
35	Ma Yin New	Female	Farmer
36	Ma Than Moe Htwe	Female	Farmer
37	Ma Naing	Female	Farmer
38	Ma Tin Cho	Female	Farmer
39	Ma Htar Htar	Female	Farmer

40	Ma Htwe Htwe	Female	Farmer
41	Ма Муо	Female	Farmer
42	Daw Mar Sein	Female	Farmer
43	Daw Myat Yin	Female	Farmer
44	Daw Tin Kyi	Female	Farmer
45	Daw Kyi Aye	Female	Farmer
46	Daw Hla Myint	Female	Farmer
47	U Thein Aung	Male	Farmer
48	Daw Mya San	Female	Farmer
49	Daw Thein	Female	Farmer
50	Daw Kyi Nyunt	Female	Farmer

Estimated population of waterbird species in Paleik Inn

No	Family Name	0	Ostan (ifferences)	No.of Population		
•	Family Name	Common New Name	Scientific name	Dec-16	Jan-17	Feb-17
1	ANTIDAE: DENDROCYGNINAE	Lesser Whistling-Duck	Dendrocygna javanica	230	160	157
2	ANATIDAE: ANSERINAE	Greylag Goose	Anser anser	3	1087	277
3	ANATIDAE: TADORNINAE	Ruddy Shelduck	Tadorna ferruginea	3	18	8
4	ANATIDAE: ANATINAE	Chinese Spot-billed Duck	Anas zonorhyncha		35	
5		Indian Spot-billed Duck	Anas poecilorhyncha	20		5
6		Northern Shoveler	Anas clypeata			2
7		Northern Pintail	Anas acuta	8		
8		Baer's Pochard	Aythya baeri		2	
9		Ferruginous Pochard	Aythya nyrca	13	1	
10	PODICIPEDIDAE	Little Grebe	Tachybaptus ruficollis	2	1	4
11		Great Crested Grebe	Podiceps cristatus			
12	CICONIIDAE	Asian Openbill	Anastomus oscitans	43	214	35
13	THRESKIORNITHIDAE: THRESKIOGNITHINAE	Black-headed Ibis	Threskiornis melanocephalus	6	1	
14		Glossy Ibis	Plegadis falcinellus	34	86	15
15	ARDEIDAE: ARIDEINAE	Black-crowned Night-Heron	Nycticorax nycticorax	120	272	150
16		Indian Pond Heron	Ardeola grayii		89	
17		Chinese Pond Heron	Ardeola bacchus			15
18		Eastern Cattle Egret	Bubulcus coromandus	2	25	3
19		Grey Heron	Ardea cinerea	35	43	7
20		Purple Heron	Ardea purpurea	9	4	2
21		Great Egret	Ardea alba	3	33	3
22		Intermediate Egret	Mesophoyx intermedia		6	5
23		Little Egret	Egretta garzetta	13	53	12
24	PHALACROCORACIDAE	Little Cormorant	Phalacrorax niger	17	312	30
25		Great Cormorant	Phalacrorax carbo	64	132	
26	ANHINGIDAE	Oriental Dater	Anhinga melanogaster	21	48	13
27	RALLIDAE	White-breasted Waterhen	Amaurornis phoenicurus	2	4	
28		Baillon's Crake	Porzana pusilla		1	
29		Ruddy-breasted Crake	Porzana fusca		1	
30		Crake	Porzana sp	2		
31		Grey-headed Swamphen	Porphyrio poliocehalus	3		3
32		Common Moorhen	Gallinula chloropus	13	3	8
33		Common Coot	Fulica atra	34	49	25
34	JACANIDAE	Pheasant-tailed Jacana	Hydrophasianus chirurgus			6
35	RECURVIROSTRIDAE	Pied Avocet	Recurvirostra avosetta			14
36		Black-winged Stilt	Hmantopus himantopus		14	1800
37	CHARADRIIDAE	Little Ringed Plover	Charadrius dubius	3	41	15
38	SCOLOPACIDAE: GALLINAGININAE	Snipe	Gallinago Sp		6	
39		Pintail Snipe	Gallinago stenura		14	

No	Family Name	Common New Name	Scientific name	No.of Population		
	Family Name	Common New Name	Scientific name	Dec-16	Jan-17	Feb-17
40		Common Snipe	Gallinago gallinago	3		
41	SCOLOPACIDAE: TRINGINAE	Green Sandpiper	Tringa ochropus			3
42		Wood Sandpiper	Tringa glareola	5	39	6
43		Common Sand Piper	Actitis hypoleucos			2
44		Temminck's Stint	Calidristemminckii		22	20
			Total Population	711	2816	2645

Estimated population of waterbird species in Pyu Lake

No	Family	Common Name	Scientific Name	No	No. of Population		
•	r anny			Dec-16	Jan-17	Feb-17	
1	ANATIDAE: DENDROCYGNINAE: Whistling-ducks	Lesser Whistling-Duck	Dendrocygna javanica	200	459	150	
2	ANATIDAE: TADORNINAE:	Ruddy Shelduck	Tadorna ferruginea		2		
3	ANATIDAE: ANATINAE:	Cotton Pygmy-Goose	Nettapus coromandelianus	12		35	
4		Gadwall	Anas strepera	15	84	30	
5		Flacated Duck	Anas falcata	6	1	2	
6		Eurasian Wigeon	Anas penelope	20	107	78	
7		Indian Spot-billed Duck	Anas poecilorhyncha	7			
8		Northern Shoveler	Anas clypeata	11	54	67	
9		Northern Pintail	Anas acuta	280	32	2	
10		Garganey	Anas querquedula	18	755	500	
11		Red-crested Pochard	Netta rufina		1	2	
12		Common Pochard	Aythya ferina	24	11	5	
13		Baer's Pochard				3	
14		Ferruginous Pochard	Aythya nyrca	40	110	30	
15		Tufted Duck	Aythya fuligula	35		60	
16	PODICIPEDIDAE:	Little Grebe	Tachybaptus ruficollis	16	220	250	
17	CICONIIDAE:	Asian Openbill	Anastomus oscitans	3	3	3	
18	THRESKIORNITHIDAE: THRESKIOGNITHINAE:	Black-headed Ibis	Threskiornis melanocephalus	1		7	
19		Glossy Ibis	Plegadis falcinellus	36	90	15	
20	THRESKIORNITHIDAE: PLATALEINAE:	Eurasian Spoonbill	Platalea leucorodia			1	
21		Black-crowned Night-Heron	Nycticorax nycticorax	9			
22	ARDEIDAE: BOTAURINAE:	Yellow Bittern	Ixobrychus sinesis		1		
23		Great Bittern	Botaurus stellaris			1	
24	ARDEIDAE: ARIDEINAE:	Chinese Pond Heron	Ardeola bacchus	15	12	25	
25		Eastern Cattle Egret	Bubulcus coromandus	26	15	15	
26		Grey Heron	Ardea cinerea	16		6	
27		Purple Heron	Ardea purpurea	3	4	4	
28		Great Egret	Ardea alba	14	1	7	
29		Intermediate Egret	Mesophoyx intermedia	5	3	10	
30		Little Egret	Egretta garzetta	23	4	20	
31	PHALACROCORACIDAE:	Little Cormorant	Phalacrorax niger	35	104	50	
32	ANHINGIDAE:	Oriental Dater	Anhinga melanogaster	12			
33	RALLIDAE:	Baillon's Crake	Porzana pusilla			1	
34		White-breasted Waterhen	Amaurornis phoenicurus	3			
35		Common Moorhen	Gallinula chloropus	23	13		
36		Common Coot	Fulica atra	3206	3140	2400	
37	GRUIDAE: GRUINAE:	Common Crane	Grus grus	365		5	
38	VANELLIDAE:	Northen Lapwing	Vanellus vanellus	1			

No	Family	Common Name	Scientific Name	No. of Population		
•	. ciniy			Dec-16	Jan-17	Feb-17
39		Grey-headed Lapwing	Vanellus cinereus	2		
40	CHARADRIIDAE:	Little Ringed Plover	Charadrius dubius			6
41	JACANIDAE:	Pheasant-tailed Jacana	Hydrophasianus chirurgus	27	50	50+
42	RECURVIROSTRIDAE:	Black-winged Stilt	Hmantopus himantopus	7		
43		Common Snipe	Gallinago Sp		2	
44		Swinhoe's Snipe	Gallinago megala			3
45		Common Sand Piper	Actitis hypoleucos	5		1
46		Green Sandpiper	Tringa ochropus			1
47		? Snipe	Gallinago Sp	3		
			Total Population	4524	5278	3795

Recorded pictures of threats at inland lakes of central Myanmar





Electric shock fishing at Paleik Inn.

Throwing rubbish near water of Pyu Lake.



Rubbish in Pyu Lake.



Electric shock fishing in Banaw Inn.



Washing and Bathing in Pyu Lake.

Bird hunting by using mis-net in Paleik Inn.

Recorded picture of habitat in inland lakes of central Myanmar



Recorded fishes in the Pyu Lake



Grasses and reeds in Pyu Lake



Floating plants and aquatic trees in Pyu Lake



Tha-ngedaw Inn



Banaw Inn



Grossy Ibis and Chaungmanet Dam





Habitat of Paleik Inn

Greylag Goose and Banaw Inn

Other recorded pictures



A lot of snails at Paleik Inn.



Cups distributed to communities.



Bird survey team in Banaw Inn



Waterbird in Pyu Lake



Bird survey team at Paleik Inn

Bird Survey team at Pyu Lake