KOTA BELUD BIRD SANCTUARY,
SABAH
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KOTA BELUD BIRD SANCTUARY, SABAH

A SITE OF INTERNATIONAL IMPORTANCE FOR BIRD CONSERVATION

PRELIMINARY REPORT ON POTENTIAL FOR TOURIST DEVELOPMENT

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1. INTRODUCTION

Much has been said in recent times, within Sabah and throughout Malaysia, about developing the tourism industry. It is generally agreed that promoting and expanding the industry would be beneficial to the state and country by bringing in foreign currency. For many reasons, results so far have been somewhat disappointing. One very basic reason is a partial misunderstanding within Sabah as to what attracts tourists to the state. All tourists — in many cases, people who are spending a significant portion of their savings — come to see and do things which are very different from what they can normally do. Most tourists want to do those things in reasonable comfort, without wasting time and effort in the limited time available to them. They do not want to see poor imitations of what they can experience either at home or more cheaply in other countries. Sabah cannot offer cheap prices or exotic night-life, but it can offer many unique natural and traditional sights. To date, only two areas — Kinabalu Park and Sepilok Orang Utan Centre near Sandakan — have been developed to any significant extent, yet there are several others with equivalent potential. To succeed in developing a worthwhile tourism industry, it is imperative that more natural features and areas of traditional culture are selected and carefully developed, but not transformed into expensive replicas of features found elsewhere.

One site with significant but unrealised potential is Kota Belud Bird Sanctuary. This site combines convenient access from Kota Kinabalu, wildlife, traditional culture, an unusual mix of farming and nature in harmony, and outstanding natural scenery. In addition, it is a site of international importance to the conservation of bird life, particularly those species which migrate yearly from temperate climates. Inexpensive management of this Sanctuary with a view to attracting tourists would not only bring in foreign currency but put Sabah more firmly and prestigiously on the international map of conservation-minded countries. Equally important, development of the Sanctuary for tourism would provide a new source of income for residents of the Sanctuary and surrounding area.

It is a fact that the greatest interest of hundreds of thousands of people in the world is observing wild birds. Most of these people live in northern Europe, North America and, increasingly, Japan and Australia, and many are able and willing to spend their annual holiday — and their money — on visiting a place where they can see birds. This is something not fully appreciated by those involved in tourism. In Kinabalu Park, visitors can see mountain birds, while at Sepilok they can see those species occurring in the lowlands of Borneo. At Kota Belud, they can see yet a different array, notably the larger, more impressive waterbirds. The potential is there to be exploited.
MAP 1 LOCATION OF KOTA BELUD BIRD SANCTUARY

SOUTH CHINA SEA

RIVERS
MAJOR ROADS
KOTA BELUD BIRD SANCTUARY

Scale 0 5 10 15kilometres

Kota Belud
Tempasuk Plain
Kawang Kawang
Kadamaian
Mount Kinabalu (4101 m)

Kota Kinabalu
Ranau

Kinabalu Park entrance

N
2. LOCATION OF KOTA BELUD BIRD SANCTUARY

The Sanctuary is situated in a flat coastal marsh in northwestern Sabah. It extends from just north of Kota Belud town to Rampayan, either side of the main Kota Belud-Kudat road (Map 1).

- The area between the sea and the main road is known as Tempasuk Plain, while the marshy area in the southern part of the Sanctuary inland from the road is called Kerah Swamp (Map 2).

- Kota Belud is a small country town, situated next to the Tempasuk River, and famous for its colourful weekly Sunday tamed (market) where various sorts of local produce, notably buffaloes, are sold.

- Moslem Bajau and Iban people live on Tempasuk Plain. Traditionally, these people raise buffalo, cattle and horses, grow wet rice and catch sea produce. Kadazan (or Dusun) people live further inland on and below the foothills of Mount Kinabalu.

Plate 1. Mount Kinabalu from the Tempasuk Plains in Kota Belud Bird Sanctuary
3. **STATUS OF THE SANCTUARY**

About 12,200 hectares was gazetted as a Bird Sanctuary in 1960, but its importance for migratory birds has remained almost unknown internationally, while its potential for tourism development has also been unrealised. Now, most of the land within the Sanctuary area has dual status. In terms of legal status, land within the Sanctuary can be divided into five main categories (Map 3).

**Grazing Reserve**

Communal grazing grounds or grazing reserves, intended for use by residents of local communities, (as described in the Cattle, Grazing and Pounds Ordinance, 1973) occupy some 2670 ha. According to the Ordinance, such land should consist of a mixture of grassland, swamp and jungle, and support one buffalo or cow to every one-and-a-half to two acres of land. The legal status is weak, however, as there is nothing to prevent re-allocation of grazing land for other purposes.

**Foreshore Reserve**

About 110 ha. of land along the coast, including beach and sand dunes, is foreshore reserve, as described in the Land Ordinance, 1975.

**Army Reserve**

About 170 ha. of hilly land along the eastern boundary of the Sanctuary is allocated to the Malaysian army for training purposes. None of this land is of use for either tourism or bird conservation.

**Titled Land**

About 7510 ha. of land within the Sanctuary is titled land either under private ownership or occupied by schools and government agencies. Much of this land at present supports habitat suitable for birds. The existing legislation, however, does not prevent any form of land development in a Bird Sanctuary which is unsuitable for birds.

**Unallocated Land**

About 1740 ha. of land within the Sanctuary, predominantly lowland marsh with small patches between titled lots, has no other status than Bird Sanctuary and Stateland.
Plate 2. Sunset over Tempasuk Plain.

Plate 3. Rajau resident of Tempasuk Plain.
4. EXISTING FEATURES OF THE SANCTUARY

Access
Less than two hours drive from Kota Kinabalu. Ideal for both day-trips and longer visits.

Accommodation
A government Rest House and one hotel in Kota Belud town, with traditional-style private houses throughout the Sanctuary. With improvements, there are opportunities to attract over-night visitors.

Photography
A scenically attractive region, with excellent views, and featuring a traditionally Sabahan way of life.

Natural History
A wider and more unusual range of habitats than is to be found in almost any other location in Sabah (see Appendix I).

Birds
Unusual bird life, with up to half a million migrants from October to March, and thousands of resident birds at all times of the year (see Appendix II).

Horse-riding
With local horsemen. An attraction for the adventurous.

Sun-bathing
Unspoiled sandy beaches, some accessible by road, some deserted but accessible by boat from Rampayan.

The sea
Opportunities for fishing.

Weekly market
The colourful Kota Belud tamu every Sunday.

Local Handicrafts
Two Kraftangan (handicraft) centres, one near Kota Belud town, one within the Sanctuary.

Picnicking
Picnic spot at Rampayan. Suitable lunch site for day-trippers.

Manpower
Many local residents looking for small business opportunities such as refreshment shops or organising hire of boats or horses.
Plate 4. Buffalo on Temesan Plain.

Plate 5. Boats at the mouth of the Temesan River, with Kinabalu Park in the background.
5. **EXISTING RESOURCES IN MORE DETAIL**

**Accommodation**

At present, accommodation in the Sanctuary area is of a lower standard than most international tourists would expect.

A government Rest House with six rooms is situated about 1km from Kota Belud town centre. Rooms have to be booked in advance through the District Office and preference is given to government staff and those whose work relates to government activities, and M$12 per person per night for others.

The Hotel Kota Belud is the area's only hotel, situated in Kota Belud town centre, with nine air-conditioned rooms. The current rate is M$35.30 per single room and M$39.60 per double room.

A number of local residents are willing to rent out houses at up to M$50 per week, but most are very simple and lack reliable water supplies or sanitation, and at present are unsuitable for most casual visitors or tourists.

**Roads and paths**

The area is about 80km by sealed road from Kota Kinabalu and can be reached within two hours. Within the Bird Sanctuary and adjacent areas, most of the larger settlements are linked by gravelled roads. In addition, there are unsurfaced jeep tracks on Tempasuk Plain. Use of these tracks by motor vehicles is not to be encouraged, as excessive use will rapidly lead to their deterioration.

There are no clear footpaths, but these, and bridle paths for horse riding, could be developed if landowners agree. As time goes on, more and more barbed wire fences are constructed throughout the area, and the potential for developing a system of paths decreases.

**Livestock and agriculture**

One of the most prominent features of Tempasuk Plain is the presence of large numbers of buffalo, cattle and horses. It is impossible to estimate the exact number and distribution of these animals, but latest estimates for the whole Kota Belud district are: 10,000 buffaloes and 9,500 cattle, with an unknown number of horses. Probably about half of these live on Tempasuk Plain and adjacent flat land. It is further estimated that at least 3,000 buffaloes and cattle are born in the district annually. This figure for productivity is calculated from the following records and estimates: 2,200 exported out of the district, 700 slaughtered locally for sale and 100 slaughtered for family consumption annually.
Plate 6. Cakesellers at the weekly Kota Belud tamu.

Plate 7. Ibanum house of nipah thatch on Tempasuk Plain.
The horses are used for herding cattle, for transport especially where there are no roads, and also for racing. There are a few goats in the region and pigs in some of the Kadazan settlements inland.

The major agricultural crop of the area is wet rice. Other staple, vegetable and fruit crops are grown only on a very small scale.

Horse-riding

Many local residents throughout the Sanctuary keep horses and almost all people appear to be willing to hire them for riding by tourists. The condition of the horses in terms of health and amount of care is variable, however, and many owners have only roughly-made riding equipment. Care will be needed to select suitable horses, and it will also be necessary to choose owners willing and able to cater to the needs of non-Malay speaking tourists.

Photographic opportunities

There are numerous opportunities to capture the spirit of Sabah in both still and movie photography. Mount Kinabalu and its foothills are visible from most parts of the Sanctuary, changing in colour and mood with weather and time of day. Sunsets on fine days are especially spectacular over Tempasuk Plain. Local farming techniques, houses, culture and handicrafts are attractive and always evident. Some visitors may prefer to concentrate on photographing people, plants or birds.

Tamu, handicraft centre and shops

The tamu, or weekly district Sunday market, is well-publicised. It remains particularly attractive to tourists because it is "natural", catering for local residents but with no special facilities for the visitor. Its drawbacks as far as the tourist is concerned are that it occurs only once a week and an early start must be made from Kota Kinabalu to arrive while there are still plenty of goods and before it is too hot.

The handicraft centre (at two separate sites; see Map 2) seems unpublicised and rarely visited by tourists. It is the only one of its kind in Sabah and its potential for bringing money into the pockets of local residents is still barely exploited.

The shops in and around Kota Belud are of no interest to the visitor and the quality of food available is rather low.

The daily Kota Belud town market sometimes has items of interest to the visitor, such as local fruits and handicrafts.
Plate 8. The handicraft centre at Kampung Marahau, Kota Belud Bird Sanctuary: weaving to traditional Bajau designs.

Plate 9. Secluded beach to the north of Rampayan.
The sea and beaches

The sea and beaches off Tempasuk Plain and to the north of Rampayan are scenically attractive, but the sea is often rough with strong undercurrents, and it is perhaps inadvisable to promote the area for swimming. The beaches are entirely sandy, clean and little used except by local fishermen. The long beach between the Tempasuk River and Rampayan is accessible by motor vehicle. The sandy coves north of Rampayan may be reached by road followed by a reasonable walk, or by boat from Rampayan. Sea produce may be seen in any of the coastal settlements in the region. At certain times, said by local residents to be between around October to May, turtles come up to lay eggs on the beaches. Although still unconfirmed, it is likely that most are Loggerhead Turtles (*Caretta caretta*).

People

The Bajau people of the Kota Belud area are traditionally independent-minded and have had little contact with foreign visitors. As long as tourists are made aware of this, problems need not arise and indeed this factor may be an advantage in that traditional ways are less likely to be eroded.

Certainly, a steady inflow of tourists will provide income for at least some local residents.

Birds

*Kota Belud Bird Sanctuary* is a conservation area of international significance, used by at least 127 bird species (Appendix II).

From surveys done during 1984-1985, it is estimated that up to half a million birds use the area annually, most of which have migrated from northern climates during the winter period. This figure includes 300,000 Swallows, 50,000 Yellow Wagtails, 5,000 Egrets, 2,000 waders of various species and 1,500 other waterbirds. If migrant and resident birds are combined, there are 59 species of waterbirds, 27 open country species, 25 woodland species, 9 species of birds of prey and 7 seabird species. The majority of these birds are species not occurring at other sites such as Kinabalu Park or Sepilok.

These figures show that the Sanctuary will be a significant attraction for ornithologists and other visitors interested in natural history.

The greatest number of birds are seen during period October to March, but there is at least something of interest at all times.
Plate 10. Immature Frigatebird, over the sea at Rampayan.

Plate 12. The Egret roost at Kampung Sangkir, Kota Belud Bird Sanctuary.

6. **SUGGESTED DEVELOPMENT OF RESOURCES FOR TOURISM**

**Detailed Study and Budget for Development**

If the proposal outlined in this report is accepted in principle, it will be necessary to:

(i) Make further contact with local residents, to assess their opinions and suggestions. It will be particularly important to identify which parts of the Sanctuary are potentially available for productive development, and which, even though seemingly suitable, might lead to conflict of interest with local needs (note Map 3).

(ii) Seek expert advice on how to develop those aspects related to birds, notably on increasing bird numbers and making them more visible to visitors.

(iii) Draw up a budget and locate sources of funding, which will be needed for management committee activities (see next section, below), expert advice on development relating to birds and for construction of facilities. Voluntary or donated assistance may be available in some cases.

(iv) Produce a written management plan.

**Management Committee**

Several agencies and many people have a legitimate interest in the development of Kota Belud Bird Sanctuary, and it is important that from the outset all have a chance to voice their opinions and suggestions. The most useful way would probably be through a management committee, which would meet at fairly regular intervals, either in Kota Kinabalu or possibly in Kota Belud if the latter site permits fuller input from local interests. While intending to represent all relevant interests, it is important that the committee be kept as small as possible, so as to ensure that main issues rather than minor details are discussed.

It is suggested that the committee consist of representatives from the Game Branch (or Wildlife Section) of the Sabah Forest Department (which has responsibility for managing Bird Sanctuaries), the Ministry of Manpower and Environmental Development and the tourism development bodies, together with the District Office of Kota Belud. Specific matters would be allocated for a particular person, team or sub-committee to investigate. It may be that, from time to time, representatives from communities in the Sanctuary will be required to participate in meetings or investigations.
Creating of a System to Develop and Maintain Tourist Inflow

Development and maintenance of an inflow of tourists into the area requires coordination by one agency. The Game Branch, Forest Department and other agencies indirectly connected with tourism will be involved, but any one of them cannot be expected to deal with all aspects.

While creation and maintenance of infrastructure within Sabah is of prime importance, it is equally important that marketing is not neglected. The main target would be medium to high budget group tours with an interest in natural history and/or culture who would visit on a day-trip basis from high class hotels in the Kota Kinabalu area. Many tourists with an interest in natural history come on a low budget, but their potential for contributing to the local economy should not be underestimated, because they will be willing to rent cheap local accommodation for several days. Links should be sought with relevant tour group operators in Kuala Lumpur, North America, Europe, Japan and Australia. Advertisements should be placed in magazines and bulletins of naturalists' societies, clubs and zoos in these regions.

On-site Developments

The following on-site developments are proposed:

- Extension and improvements of the government Rest House to cater for tourists.
- Assistance for a small number of local residents to construct or improve existing houses for rent by tourists.
- Agreement with residents of Kampung Kuala Rampayan on a system for organizing boat trips.
- Agreement with local residents on a system for organizing horse rides.
- Notable road to Kampung Sangkir (already planned) giving access to the area's main egret roost.
- Construction of one or more hides (shelters for viewing birds at close range) at appropriate sites. A suitable initial site would be the large lake between the Taun Gusi secondary school and the road to Rampayan. Additional sites would be chosen after land status has been clarified.
- Construction of nature trails with adequate car parking facilities.
- Support for opening a coffee shop or restaurant within the area.
Postiong of a (Forest Department) Wildlife Ranger in the Sanctuary area.

Other Facilities Required

- Development of a system for booking rest-house, hotel and private houses.
- Production of an explanatory leaflet, bird check-list and map of the Kota Belud area and its Bird Sanctuary.
- Method for fixing limits of prices charged for all tourist facilities.
- Day-trips from Kota Kinabalu hotels.
- Promotion of the Kraftangan (handicraft) centre and marketing of its products within Kota Belud.

Zoning

Throughout the world, areas important for conservation of wildlife are usually divided into zones based on their functions and use. Detailed zoning for Kota Belud Bird Sanctuary must be await further field-work and production of a management plan for the Sanctuary. It should be noted that, if this proposal is accepted, developed and publicised, casual tourists and Sabahans will visit the site, possibly in large numbers on holidays and at weekends. Even though they may not be interested in those aspects which will interest the majority of tourists, such visitors will expect to be directed to a particular place, some sort of focus, before they turn around to go home. It is necessary to choose such a place at an early stage, and a likely site would be the "peninsula" of land in the north of the Sanctuary, leading to Kampung Kuala Rampayan (Map 2). With direct road access, a limited amount of cultivation and livestock, and bounded on three sides by the sea and river, it will be possible to contain and minimise the problems of litter, noise and habitat disturbance often associated with casual visitors.

Biological and Legal Aspects of Development

For successful development of the Sanctuary, certain biological and legal aspects must be taken into account (see Appendices III and IV).
7. **PUBLIC AWARENESS AND EDUCATION**

The value of Kota Belud Bird Sanctuary as a site of international conservation importance and as a source of revenue from tourism will be fully realised only if people, particularly local residents, are aware of both aspects.

Awareness can be promoted in the following ways:

1. Briefings to local community leaders.

2. Talks and slide or film shows on conservation and wildlife topics for the students at Sekolah Menengah Kebangsaan Taun Gusi, the largest secondary school in the Sanctuary area. These would be followed up by encouraging a specific interest in the Sanctuary and its birds. Students would thereby be provided with ideal subjects for project work, and at the same time be able to provide interesting and potentially useful data for Sanctuary management and tourists.

3. Articles in Sabah newspapers, especially in Bahasa Malaysia.

4. Articles in magazines and newspapers elsewhere.

5. Appointment of interested local residents as "custodians" of important sites (such as egret roosts) in the Sanctuary.
8. **SUMMARY**

(1) Kota Belud Bird Sanctuary is of outstanding importance in the conservation of many bird species, particularly those which migrate annually from temperate climates.

(2) The Sanctuary offers great potential in attracting tourists to Sabah, especially from northern Europe, North America and Japan.

(3) Features of interest to tourists within the Sanctuary area include:

(a) Over 120 bird species, represented by up to half a million individuals annually;
(b) Local culture and scenery;
(c) Excellent opportunities for photography;
(d) Horse-riding;
(e) Picnics and sun-bathing;
(f) The sea and fishing;
(g) Local handicrafts and weekly market.

(4) Careful tourism development can bring income to local residents as well as to government.

(5) Suggestions are made in this report on ways of developing tourism in Kota Belud Bird Sanctuary. The emphasis is on simple, inexpensive development which would benefit local residents, maintain and improve the habitat for birds and show tourists the natural beauty of Sabah.

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APPENDIX I. HABITATS IN KOTA BELUD BIRD SANCTUARY

1. BEACH

The beach is narrow and entirely sandy and forms a section of the Sanctuary boundary. Some rocky promontories on the coast to the north of the Sanctuary.

2. DUNES AND HINTERLAND

The dunes and hinterland are vegetated with grasses, pandans and various herbs and shrubs, including Caesalpinia major, Cassia occidentalis and Grotolaria pallida (Leguminosae), Urena lobata (Malvaceae) and Ocimum sanctum (Labiatae). There is some open woodland behind the dunes in the Kerah River area, which appears very unlike woodland elsewhere in Sabah, and superficially resembles that of savannah in the seasonal tropics. The largest tree, reaching to about 24 metres high, is Bombax ceiba (Bombacaceae). Most of the trees are much smaller, the commonest species being Antidesma ghaesemiana, Gelonium cf. glomeratus and Melanolepis mangifera (Euphorbiaceae), Anacardium occidentale and Semecarpus cf. cuneiformis (Anacardiaceae) and Pongamia pinnata (Leguminosae). A woody, semi-parasitic climber, Macrosolen cochinichinensis (Lorantheaceae) is fairly common.

3. DAMP GRASSLAND

The most extensive habitat in the Sanctuary, maintained by grazing, with scattered areas of open water. Open water is covered by Water Hyacinth in most areas.

4. SWAMP FOREST

Some freshwater, with strangling figs Ficus sp. (Moraceae) being a prominent feature, but mostly brackish water. Avicennia alba and A. marina (Verbenaceae) are common in the brackish water.

5. FRESHWATER REEDSWAMP AND OPEN WATER

Occurs in scattered parts of the Sanctuary, and with several species of reeds, sedges and grasses. The most important and extensive areas are inland, in the Kerah Swamp. Periodically burned to provide new pasture or padi land.

6. PADI

Padi - wet rice - is grown through many parts of the Sanctuary, especially in the south and is cultivated intensively in some localities.

7. SETTLED AND CULTIVATED LAND

Includes houses, other buildings, gardens, roads and other habitats not included in 1-6 above.
APPENDIX II

A CHECKLIST OF ONE BIRDS OF KOTA BELUD BIRD SANCTUARY

Compiled from observation by Duncan Parish, Junaidi Payne, David Beadle, Charles Francis, Ben King, Quentin Philipps, Susan Philipps, Fred Sheldon, David Wells, Andrew Whittaker and Dennis Yong.

1. Christmas Island Frigatebird
2. Lesser Frigatebird
3. Oriental Darter
4. Grey Heron
5. Purple Heron
6. Large Egret
7. Intermediate Egret
8. Little Egret
9. Cattle Egret
10. Little Green Heron
11. Yellow Bittern
12. Cinnamon Bittern
13. Night Heron
14. Lesser Adjutant Stork
15. Black-headed Ibis
16. Spoonbill
17. Mallard
18. Wigeon
19. Garganey
20. Shoveler
21. Tufted Duck
22. Black-shouldered Kite
23. Brahminy Kite
24. Eastern Marsh Harrier
25. Northern Harrier
26. Pied Harrier
27. White-bellied Sea Eagle
28. Peregrine Falcon
29. Japanese Sparrowhawk
30. Kestrel
31. Blue-breasted Quail
32. Slaty-breasted Rail
33. Ruddy-breasted Crake
34. White-browed Crake
35. White-breasted Waterhen
36. Watercock
37. Purple Swamphen
38. Moorhen
39. Coot
40. Lesser Golden Plover
41. Little Ringed Plover
42. Kentish Plover
43. Malaysian Plover
44. Mongolian Plover
45. Greater Sandplover
46. Oriental Plover
47. Curlew Sandpiper
48. Red-necked Stint
49. Long-toed Stint
50. Temminck's Stint
51. Sanderling
52. Wood Sandpiper
53. Green Sandpiper
54. Greenshank
55. Redshank
56. Marsh Sandpiper
57. Knot
58. Turnstone
59. Bar-tailed Godwit
60. Whimbrel
61. Common Sandpiper
62. Common Snipe
63. Pintail Snipe
64. Swinhoe's Snipe
65. Oriental Pratincole
66. Black-winged Stilt
67. Greater Crested Tern
68. Lesser Crested Tern
69. White-winged Black Tern
70. Whiskered Tern
71. Roseate Tern
72. Black-naped Tern
73. Little Tern
74. Pink-necked Pigeon
75. Spotted Dove
76. Emerald Dove
77. Plaintive Cuckoo
78. Greater Coucal
79. Lesser Coucal
80. Large-tailed Nightjar
81. White-collared Kingfisher
82. Common Kingfisher
83. Stork-billed Kingfisher
84. Hoopoe
85. Blue-throated Bee eater
86. White-bellied Swiftlet
87. Grey Swiftlet species
88. Brown Needle-tail Swift
89. Fork-tailed Swift
90. Asian Palm Swift
91. Little Swift
92. Brown-capped Woodpecker
93. Dollarbird
94. Sand Martin
95. Pacific Swallow
96. Common Swallow
97. White Wagtail
98. Grey Wagtail
99. Yellow Wagtail
100. Petchora Pipit
101. Red-throated Pipit
102. Richard's Pipit
103. Pied Triller
104. Brown Shrike
105. White-breasted Woodswallow
106. Common Iora
107. Straw-headed Bulbul
108. Olive-winged Bulbul
109. Yellow-vented Bulbul
110. Magpie Robin
111. Stonechat
112. Striped Tit-babbler
113. Great Reed Warbler
114. Yellow-bellied Prinia
115. Pallas’s Grasshopper Warbler
116. Striated Warbler
117. Arctic Warbler
118. Red-tailed Tailorbird
119. Ashy Tailorbird
120. Pied Fantail
121. Yellow-breasted Sunbird
122. Brown-throated Sunbird
123. Little Bunting
124. Glossy Starling
125. Dusky Munia
126. Chestnut Munia
127. Crow-billed Drongo
APPENDIX III  BIOLOGICAL ASPECTS OF DEVELOPMENT

If the Bird Sanctuary is to retain both its international significance in conservation and its attraction for tourists, then the prime consideration in management must be to ensure that the birds' biological requirements are met. All species require adequate areas for feeding and roosting. Resident species also require correct conditions for breeding. Hunting cannot be entirely prevented but it should be limited to levels which will not cause significant reductions in bird population size. The following specific points are particularly important:

- The traditionally mixed forms of land use in the area, especially rearing of buffaloes, are ideal for maintaining large populations of birds.

- If any one form of land-use were to be practised throughout the area, there would be a significant reduction in the number of bird species and individuals in the area.

- It is essential that a certain amount of tall reedswamp is retained undisturbed to serve as a breeding site for resident waterbirds and roosting site for egrets.

- The practice of burning reedswamp to promote grass growth or for any other purpose should be controlled during the waterbird nesting season and at all times near to egret roosts.

- Development of large-scale prawn or fish ponds through the area would lead to loss of many important feeding and breeding sites for birds. As a result, the Sanctuary would lose most of its conservation importance and tourism potential. Small or moderate scale development of such ponds, however, need not have any significant effect on the birds.

- Development of prawn or fish ponds would lead to the problem of birds feeding on the prawns or fish. It is recommended that this factor should be evaluated before and during pond development. Two methods of minimising the problem are:
  
  (a) Construction of ponds deep enough such that egrets cannot stand in the water and

  (b) Ensuring that alternative feeding sites are more attractive with shallow water, constant food supply and shelter nearby.

- Although a cost-benefit study of the proposed prawn farm for Tempasuk Plain has not been carried out, caution should be exercised rather assuming that the Plain is not productive. In fact, limited available
evidence suggests that the area may be one of the most productive buffalo/cattle farms in South-east Asia, despite having had little input from government. If prawn farming is desirable in this region of Sabah, there are many coastal communities between Kuala Rampayan and the Kudat peninsula, with suitable sites and manpower, in need of government assistance for economic development.
APPENDIX IV  LEGAL ASPECTS OF DEVELOPMENT

Present Legal Status

The Fauna Conservation Ordinance, 1963, contains the following rules governing Bird Sanctuaries:

1. Sanctuaries are gazetted and de-gazetted, and may have their boundaries changed, by order of the Yang di-Pertua Negara ("the Head of State) on advice from the Chief Game Warden (who is also the head of the Forest Department). An inquiry may by held if deemed necessary prior to deciding on gazettement but no inquiry is required for de-gazettement or alteration of boundaries.

2. Bird Sanctuaries (including Kota Belud) declared as such under legislation prior to the Fauna Conservation Ordinance retain their legal status of Bird Sanctuary.

3. Anyone found hunting wild birds (whether classed as "protected species" or not) or in circumstances showing the intention to hunt wild birds (including possession of a firearm, net, snare or any form of trap) or found disturbing or removing nests in a Bird Sanctuary is guilty of an offence with a penalty not exceeding a fine of $1000 and/or six months in jail.

4. The following categories of people are exempt from the penalty described in 3. above: game wardens and game rangers, public officers on duty, residents of the Sanctuary who have a permit issued by a game warden, anyone travelling through the Sanctuary who has permission from a game warden to carry a gun or device for catching birds.

The legislation says nothing on what changes may or may not be carried out to the habitat in a Bird Sanctuary.

Improving the Legal Status

It is essential that at least parts of the Sanctuary area are given a stronger legal status, so that destruction of key feeding, roosting and breeding areas may be prevented, or at least minimized, in the future. With about 60% of the Sanctuary legally held under private ownership, this will be difficult, but not impossible. Several options are available, the three major one being:

(1) Do nothing about the legal status. Station Game Rangers in the Sanctuary to deal with chronic minor problems such as hunting and burning of reedswamp.

This option cannot be considered to be satisfactory, as there is no legal way of preventing destruction of vital feeding/breeding areas.
(ii) Strengthen the rules on Bird Sanctuaries so that:

(a) No further titles can be issued for untitled land.
(b) Alteration of habitat in untitled land within Sanctuaries is an offence unless agreed upon subsequent to an inquiry.
(c) Alteration of habitat for non-traditional purposes in titled land within the Sanctuary is permissible only after agreement by the Chief Game Warden.
(d) Residents within the Sanctuary must inform the Game Warden before burning in or near to reedswamp, and the Game Warden has the right to forbid burning of reedswamp where this will be detrimental to the bird population.

This option would restrict further loss of habitat in the Sanctuary, but present minimal conflict of interests with local residents as long as it were carried out with care, and in conjunction with public awareness activities (see section 7). It also allows for the interests of all parties to be represented should plans for ventures such as prawn farms be put forward. The Fauna Conservation Ordinance, section 34, allows for the Yang di-Pertua Negara to make these rules without amending the Ordinance.

(iii) Gazette selected feeding, breeding and roosting areas within the Sanctuary as either Park (under the Parks Enactment, 1984) or Forest Reserve (under the Forest Enactment, 1968).

Either status would confer much stronger legal protection of the habitat than Bird Sanctuary. Such activities as allowing domestic animals into the area, lighting fires or erecting dwellings would be prohibited. Clearly, however, there is potential for chronic conflict with local residents, which could be counterproductive to the aim of securing safe habitat for the birds. In any case, the presence of grazing animals and a limited amount of burning are important components of the ecology of the Sanctuary.

It is recommended that steps are taken to implement option ii.