New records of birds from the Maldives, with notes on other species

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Twelve species of bird were recorded from the Maldives for the first time: Lesser Whistling-duck *Dendrocygna javanica*, Fork-tailed Swift *Apus pacificus*, Spotted Redshank *Tringa erythropus*, Pomarine Jaeger *Stercorarius pomarinus*, Brahminy Kite *Haliastur indus*, Jouanin’s Petrel *Bulweria fallax*, Streaked Shearwater *Calonectris leucomelas*, Swinhoe’s Storm-petrel *Oceanodroma monorhis*, Leach’s Storm-petrel *O. leucorhoa*, Long-tailed Shrike *Lanius schach*, Red-rumped Swallow *Hirundo daurica* and Streak-throated Swallow *H. fluvicola*. In addition, published records of Common Kingfisher *Alcedo atthis*, Rose-ringed Parakeet *Psittacula krameri*, Whiskered Tern *Chlidonias hybrida*, Red-billed Tropicbird *Phaethon aethereus*, and Forest Wagtail *Dendronanthus indicus* were not included in the 1994 checklist of birds (J. S. Ash and A. Shafeeg, *The birds of the Maldives*. *Forktail* 10: 1-31). This raises the total number of bird species recorded from the islands to 167. Unusual records of other species, and recent bird conservation measures in the Maldives are noted.

INTRODUCTION

The birds of the Maldives were recently reviewed by Ash and Shafeeg (1994). They listed 150 species, with a further ten species listed as unconfirmed. Five other species have been recorded from the Maldives, but were not included in the review of Ash and Shafeeg (1994). The background to Maldivian ornithology is described by Phillips and Sims (1958), Phillips (1963), Strickland and Jenner (1978) and Ash and Shafeeg (1994). There is therefore no need to repeat it here, beyond mentioning two minor reports of birds (by non-specialists) overlooked by previous reviewers.

Fosberg (1957) spent three days in the Maldives in April 1956, when he visited Malé and two nearby uninhabited islands, Kuda Bandos and Furana. His interest was mainly botanical, and the only birds he noted were crows and ‘two individuals of a kind of large heron’ on Malé, a small sandpiper on Kuda Bandos, and crows and a flock of unidentified ‘white terns’ on Furana. The species he saw were probably the House Crow *Corvus splendens* maledivicus, Grey Heron *Ardea cinerea*, Common Sandpiper *Actitis hypoleucos* and Black-naped Tern *Sterna sumatrana*.

Webb (1988) provided a wide-ranging general account of the Maldives. He listed 18 species of bird by name, including what appears to be the first record of the House Crow *Corvus splendens* maledivicus, Grey Heron *Ardea cinerea*, Forest Wagtail *Dendronanthus indicus*. In addition, he provided photos of eight common species. These included the Indian Pond Heron *Ardeola grayii* in the background of his photo of flying herons (Webb 1988: 71); the bird labelled ‘a Maldivian Pond Heron’ in his photo on page 72 is actually a Little Heron *Butorides striatus*.

Since the publication of Ash and Shafeeg’s (1994) review, relatively little has been published on Maldivian birds. There have been some local reports on seabirds, emphasizing their importance to the local tuna fishery and the need for their conservation (Adam 1994, Anderson 1996, Bluepeace 1996, Rasheed 1999). The presence of seabirds enables local fishermen to locate tuna schools, and is essential for the successful operation of the fishery. In addition, a book on Maldivian seabirds by Ahmed Shafeeg (1993), which was available to Ash and Ali Shafeeg (1994) only in manuscript form, has since been published. (Ali Shafeeg is the son of Ahmed Shafeeg).

Finally, a summary checklist of the birds of the Maldivian Islands was privately printed by Lamsfuss (1998). It included two first records: Common Kingfisher *Alcedo atthis* and Forest Wagtail *Dendronanthus indicus*. It also included two other species (Red-tailed Tropicbird *Phaethon rubricauda* and Western Reef Egret *Egretta gularis*) previously unrecorded from the Maldives.

These records were based on sightings at sea, but the sightings were outside the current Maldivian Exclusive Economic Zone, and so these species will be listed as ‘potential visitors’ in future printings of the checklist (G. Lamsfuss, *in litt.* May 2001).

The aims of this report are to document several first records of birds from the Maldives; to present new information on other species already known from the Maldives; to note recent conservation developments. RCA has been resident in Maldives since 1983. MB has visited the Maldives three times, travelling to the northern atolls in February 1999 and April 2001, and to the southern atolls in March 2000. Species marked with a single asterisk (*) are first records for the Maldives; those marked with a double asterisk (**) have been previously recorded but were not recorded by Ash and Shafeeg (1994). For details of atoll abbreviations used here, and a map, see Ash and Shafeeg (1994).

RESULTS

**LESSER WHISTLING-DUCK *Dendrocygna javanica***

One captive individual was photographed on V. Felidhoo in June 2000 by RCA and Samee Mohamed Rasheed. It was reported to have been caught on the island’s lagoon in April 2000. It is presumed to have been a vagrant.
**Common Kingfisher Alcedo atthis**
Lamsfuss (1998) recorded this species from the Maldives, but without giving details. His record was based on a definite sighting from K. Meerufenfushi in November 1996 by M. J. and J. P. Pointon (G. Lamsfuss, in litt. April 2001). Prior to this, Moutou (1985; Ash and Shafeeg 1994) noted a kingfisher at K. Lhosfushi in January 1984, which he regarded as being possibly of this species. Another Common Kingfisher was seen and video-taped at the brackish water lagoon of Sh. Medukumburudhoo on 7 and 8 January 1999, by RCA, Hussein Zahir and Ibrahim Naem. Its ear-coverts were orange, and the crown and upper wings were more blue than greenish-blue, suggesting that this individual was of the subspecies *A. a. taprobana* from southern India and Sri Lanka (Ali and Ripley 1987). A further individual, reported to be of this species, but not seen by the authors, was captured at K. Hulhule in January 1998 (Hussein Zahir, Marine Research Centre, verbally, January 1999). With all sightings to date being in November or January, it seems likely that this species is an uncommon northern winter visitor.

**Rose-ringed Parakeet Psittacula krameri**
Ash and Shafeeg (1994) noted that many reports from over the years of unidentified parakeets suggested that either there was a small resident population in the Maldives or that immigrants were occurring. They were unable to confirm the species involved beyond noting that one escaped Rose-ringed Parakeet had been captured and photographed in Malé Atoll in 1981. However, the presence of the Rose-ringed Parakeet on Malé had been noted by Webb (1988). Grimmett et al. (1998) recorded Rose-ringed Parakeet as introduced to the Maldives. A small population of Rose-ringed Parakeets has indeed been resident on Malé since at least 1984 (RCA pers. obs.), and probably for several years before that (Ahmed Hafiz, Marine Research Centre, verbally December 1999). This population was almost certainly not established as far back as 1956-1957. It was not noted by Fosberg (1957), and, more convincingly, it would have been most unlikely to have escaped the notice of W.W.A. Phillips during his stay in Malé. Indeed, Phillips mentioned that 'parakeets are unknown to the islanders' (Phillips and Sims 1958: 213). Several other species of parrots have been observed in the Maldives in recent years (mostly near Malé and the tourist resorts); they are believed to be escapees and are not thought to have established viable populations (see Discussion).

**Fork-tailed Swift Apus pacificus**
One individual was seen flying low over Malé, on 25 November 1995, by RCA. It was dark brown with a white rump, and appeared as large or larger than a Common Swift *Apus apus*. Common Moorhen Gallinula chloropus
A minimum of two and a maximum of four individuals were seen at the saltwater lake at the north end of S. Hithadho by both authors on 11 March 2000. Single individuals were seen by RCA at the same site on both 25 and 30 May 2000. It was previously known in the Maldives only from Fuvah Mulaku Atoll (Ash and Shafeeg 1994, Rasheed 1999).

**Spotted Redshank Tringa erythropus**
One individual in non-breeding plumage was seen on the beach of Lh. Veyvah on 17 February 1999 by RCA, MB and Ian Rowlands. Its legs were bright orange-red, the bill was straight, and it had no white wing patches; it gave a characteristic *chew-it* call.

**Marsh Sandpiper Tringa stagnatilis**
A flock of 10-12 birds was seen at the saltwater lake at the north end of S. Hithadho by both authors on 11 March 2000. A single individual was seen by RCA at the same site on 22 May 2000. It had previously been recorded in the Maldives only in September and October (Strickland and Jenner 1978, Ash and Shafeeg 1994).

**Sandpiper Calidris alba**
We have records from G. A. Hithaadhoo (one individual, 15 March 2000, by RCA and MB), Lh. Veyvah (three individuals, 17 and 18 February 1999, by RCA and MB) and Lh. Veligandu, a sandbank south-west of Lh. Kuredhoo (one, 30 March 2000, by RCA). It had previously been recorded only from S. Gan (Ash and Shafeeg 1994).

**Little Stint Calidris minuta**
A flock of 10-12 birds was seen by RCA and MB at the lake at the north end of S. Hithadho on 11 March 2000. It had previously been recorded only from November to January (Ash and Shafeeg 1994).

**Temminck’s Stint Calidris temminckii**
One individual was seen on 30 May 2000 by RCA at the lake at the north end of S. Hithadho. Phillips (1963) noted a single Temminck’s Stint on Addu Atoll on 26 May 1958, which he considered to be a possible non-breeding loiterer. However, these late birds may well have been passage migrants (Ash and Shafeeg 1994).

**Red-necked/Red Phalarope Phalaropus lobatus/julicaria**
One individual was seen by RCA, MB and Ian Rowlands on 21 February 1999, to the north of Haa Alifu Atoll at 07º21’N 72º49’E. It was a pale grey phalarope (appearing white from a distance), in non-breeding plumage with distinct white wing-bars and a shortish bill. It was probably a Red-necked Phalarope but specific identification was not confirmed, so it is possible that it was a Red Phalarope. The latter is a vagrant to the Indian region, while the Red-necked Phalarope is a regular winter visitor in large numbers to the northern Arabian Sea (Ali and Ripley 1987, Grimmett et al. 1998). Two Red-necked Phalaropes were reported to the Royal Naval Bird Watching Society by D.M. Neale (who had seen thousands off Arabia) from 09º40’N 76º03’E (i.e. off Lakshadweep, some 270 nautical miles NE of our Maldivian sighting) on 12 May 1958 (W. R. P. Bourne, in litt. July 2000).
All records of Lesser Black-backed Gulls from the Indian region were unacceptable, and that confusion with Heuglin’s Gull was the most likely explanation for reports of the former species. The two separate records of Ash and Shafeeg (1994) are therefore combined under this single heading here. Bourne (1996) noted that among the gulls of this type wintering in south Asia, Heuglin’s Gull is commoner in the south of the region and out at sea. It may thus be the one most likely to occur in the Maldives.

**Gull-billed Tern Gelochelidon nilotica**

Single birds in breeding plumage were recorded by RCA from the saltwater lake at the north end of S. Hithadhu on 4 April 1999 and on 25 and 30 May 2000. It had not previously been recorded in May (Ash and Shafeeg 1994).

**Whiskered Tern Chlidonias hybridus**

This species was recorded by Ahmed Shafeeg (1993), but overlooked by Ash and Shafeeg (1994). Ahmed Shafeeg (1993; verbally, July 2000) noted that the Whiskered Tern is an uncommon but regular winter (north-east monsoon season) visitor to the Maldives. It is normally seen singly. In Dhivehi it is known as valoadhoni (meaning soft or flaccid bird, in reference to its slow flight) and kagi dhooi (origins obscure). We recorded what appears to have been the same individual on every one of six separate visits to the saltwater lake at the north end of S. Hithadhu, between 11 March and 6 June 2000. It was a marsh tern in non-breeding plumage; bill black, relatively short and deep; black on crown/nape extending to eye but not below it; pale grey back, rump and tail. This individual regularly perched on the same dead mangrove bush in the centre of the lake, and hunted widely over the entire lake surface.

**Lesser Noddy Anous tenuirostris**

Very large numbers (thousands) of this species were seen off Haa Alifu Atoll in April 1998, February 1999 and March 2000. Said by local residents to roost in large numbers on the island of Gallandhoo, and also on Medhafushi and Govvafushi, all in Ihavandhippolhu Atoll (part of Haa Alifu Atoll). This is the first report of what appears to be a major feeding ground for this species. While these birds were all assumed to have been A. tenuirostris, it is possible that Black Noddies Anous minutus were present (Bourne 1997).

**Brahminy Kite Haliastur indus**

One individual was caught in Malé during the north-east monsoon season in early 1994 (Ahmed Shafeeg, verbally, July 2000). A second captured individual was photographed in Malé on 13 May 1995 by RCA; it was reliably reported to have been caught in Malé during the preceding north-east monsoon season (probably during the period December 1994 to February 1995). Three further captive individuals were seen in June 2000: one in Malé was known to have been imported from India; the origins of the second, also on Malé, could not be confirmed; the third was on V. Felidhoo, and was reported to have been imported from India.

**Red-billed Tropicbird Phaethon aethereus**

Two individuals were seen at 07º33’S 75º32’E (i.e. in the Eight Degree Channel north-east of Haa Alifu Atoll)
on 27 July 1973 by Captain P.W.G. Chilman (Bourne 1985). Although neither seen by us nor noted by Ash and Shafeeg (1994), this species may be not be especially rare at sea in the Maldives area. Dr W. R. P. Bourne (in litt. July 2000) has kindly provided us with information on six other sightings and possible sightings of Red-billed Tropicbirds in waters adjacent to the Maldives from the records of the Royal Naval Bird Watching Society:

3) G. S. Willis, 5 August 1956. Two possibilities 04°27'N 75°46'E.
4) F.W. Greaves, 27 May 1958. One 07°28'N 78°00'E.
5) D. M. Neale, 7 July 1958. One 0°, 78°E (red bill mentioned).
6) J. S. Landers, 18 August 1958. One on board 9°N 73°E.

Five of these seven sightings were made in July and August. This species may therefore occur regularly in Maldvian waters during the northern summer, as it does off the west coast of Sri Lanka (Grimmett et al. 1998).

**Little Egret Egretta garzetta**

One individual in non-breeding plumage was seen at the lake at the north end of S. Hithadhoo by RCA and MB on 11 March 2000. There have been eight previous records from the Maldives (Ash and Shafeeg 1994).

**Great Egret Casmerodius albus**

One individual in non-breeding plumage was seen at the lake at the north end of S. Hithadhoo by RCA and MB on 11 March 2000. There have been only three previous records from the Maldives (Ash and Shafeeg 1994).

**Intermediate Egret Mesophoyx intermedia**

One individual in breeding plumage was seen at the lake at the north end of S. Hithadhoo by RCA on three separate occasions between 22 May and 4 June 2000. Two other large egrets in non-breeding plumage were present at the same site on four separate occasions between 22 May and 6 June 2000. These were probably Intermediate Egrets, but the possibility that they were Great Egrets cannot be ruled out. There have been only two previous records from the Maldives (Ash and Shafeeg 1994).

**Yellow Bittern Ixobrychus sinensis**

We have two records, both from Hithadhoo in Addu Atoll. One individual was seen in flight near the lake at the north end of the island on 5 April 1999 by Mike Harris. Another individual was seen in flight near the freshwater lake in the centre of the island on 24 May 2000 by RCA. With only three previous records from the Maldives, this species was regarded by Ash and Shafeeg (1994) as a rare visitor. However, all five records are from Addu Atoll, raising the alternative possibility that there is a small resident population there. [Spot-billed Pelican Pelecanus philippensis]

We have photos of a captive individual, taken in Malé by RCA in 1995. This bird was said to have been caught in the Maldives, but details could not be confirmed. This record is therefore not accepted. Previous unconfirmed records of this species were noted by Ash and Shafeeg (1994).]

**Jouanin’s Petrel Bulweria fallax**

Two were seen by RCA in the One-and-a-half Degree Channel heading east in a westerly wind on 2 April 1999. They were distinguished from Bulwer’s Petrel Bulweria bulwerii and Wedge-tailed Shearwater Puffinus pacificus by size: the wingspan was slightly greater than nearby Audubon’s Shearwaters Puffinus lherminieri. Another individual was seen by RCA, MB and John Young in the Kaashidhoo Channel just south of Lhaviyani Atoll at 5°11'N 73°30'E on 11 April 2001. It was seen at relatively close range as it sat on the water, before flying off to the Sc. It was slightly larger than an Audubon’s Shearwater seen soon afterwards, had a substantial very dark grey bill, and flew with fast beats in high arcs. Two more birds, which were probably Jouanin’s Petrels, were seen by RCA in the Equatorial Channel on 3 April 1999, but identification was not certain. Although not previously recorded from the Maldives, there are several records from adjacent waters (Harrison 1985, van den Berg et al. 1991, Robertson 1994, Grimmett et al. 1998).

**Streaked Shearwater Calonectris leucomelas**

One individual was seen by RCA, MB and Ian Rowlands, heading north-east off the north-east side of Raa Atoll, at about 05°54’N 72°59’E, on 24 February 1999. It was a very large, long-winged shearwater; dark brown above, with an inconspicuous pale W across the upper wings; white below, with dark tips and trailing edges to the underwings; head pale with untidy dark collar. The widely repeated statement that this species occurs “as far west as the Maldives” (Harrison 1985, van den Berg et al. 1991, Eenticott and Tipling 1997) appears to have originated with Bourne (1960), not Philips and Sims (1958) as stated by van den Berg et al. (1991). However, Bourne (1960) did not report the evidence for this statement.

**Swinhoe’s Storm-petrel Oceanodroma monorhis**

Two individuals were seen on 20 February 1999, by MB and Ian Rowlands, north-west of H.A. Thurakunu, at about 07°07’N 72°44’E. They were small, all dark brown storm-petrels; very faint pale wing-bar, but without white forewing patch; tail forked. Four individuals were seen on 15 April 2001, by RCA, MB and John Young, west of Haa Alifu Atoll at about 06°53’N 72°48’E. They were small, all brown storm-petrels, without any obvious pale wing markings. These four birds appeared to be scavenging in the company of a feeding pod of False-killer Whales, Pseudorca crassidens. Prior to these sightings, three individuals tentatively identified as this species were seen on 8 April 1965 at 06°52’N 75°30’E, i.e. east of Haa Alifu Atoll by Bailey et al. (1968). Although not positively recorded from the Maldives before, there are several records from adjacent waters (Bourne 1960, Bailey et al. 1968, van den Berg et al. 1991, Grimmett et al. 1998). It is perhaps appropriate
to mention here that the identification of Swinhoe's Storm-petrels at sea in Maldivian waters is not straightforward since there are at least three possible confusion species: Bulwer's Petrel, which has been recorded from the Maldives (Phillips 1959, Ash and Shafeeg 1994); Matsudaira's Storm-petrel Oceanodroma matsudai, which has been recorded from adjacent waters (Bailey et al. 1968, Harrison 1985), and tentatively from the Maldives (one seen off H. A. Kelaa by RCA and Robert L. Pitman on 10 April 1998); and dark-rumped Leach's Storm-petrel Oceanodroma leucorhoa (Harrison 1985, Bourne and Simmons 1997).

*Leachi's Storm-petrel Oceanodroma leucorhoa*
One was seen off H. A. Kelaa by RCA and Robert L. Pitman on 11 April 1998. It had a forked tail and a white rump with a central dark line. It was positively identified by Robert Pitman, who had seen thousands and ringed hundreds of this species in the eastern Pacific. Leach's Storm-petrel has been previously recorded from the western Indian Ocean (Lapthorn et al. 1970, Harrison 1985), but this appears to be the first record for the Indian region.

*Brown Shrike Lanius cristatus*
One individual was observed at close range, singing in open grassy scrub on S. Gan, by both RCA and MB, on 12 and 13 March 2000. It had a grey crown and the nape was tinged with brown; a fine white supercilium was not sharply demarcated from the crown; a black eye-stripe, extended thinly over the bill, and curved slightly downwards posteriorly; the throat was white, sharply demarcated from the orange-buff of the breast and flanks; the vent was white; the mantle was deep brown (not rufous), appearing maroon-tinged in certain lighting; the rump was pale buff-grey; the tail and upper wings were dark; the legs were dark grey or black. This individual appeared to be a male of the eastern race, L. c. lucionensis, not the nominate, L. c. cristatus, which is the most widespread race in the Indian subcontinent. L. c. lucionensis winters mainly in eastern and southeastern Asia, but it does occur regularly in the Andaman and Nicobar Islands, and as far west as Sri Lanka (Ali and Ripley 1987, Lefranc and Worfolk 1997).

*Long-tailed Shrike Lanius schach*
A large, and conspicuously long-tailed, shrike was seen in a large mango tree on Malé, on 17 April 1999, by RCA. It had russet flanks and rump, a conspicuous black eye-band extended round the forehead and the back was grey. Rufous scapulars were not noted, so this individual was perhaps of the race L. s. caniceps, apparently resident in peninsular India and Sri Lanka, rather than L. s. erythronotus, the partly migratory race further north in the subcontinent (Ali and Ripley 1987, Grimmett et al. 1998).

*Common Myna Acridotheres tristis*
A feral population on Malé, established prior to 1939, died out during World War II (Ash and Shafeeg 1994). In late 1998 or early 1999 about a dozen Common Mynas were released in Malé; this small population appeared to be thriving in May 2001. In addition, there are small feral populations on Bandos resort island (North Malé Atoll) and on V. Felidhoo. We also have sightings of a single bird on Lh. Naifaru in February 1999, and two birds on S. Hithadhoo in May 2000.

*Red-rumped Swallow Hirundo daurica*
At least two individuals were seen hawking for insects over the brackish water lagoon of Sh. Medukumburudhoo on 8 January 1999, by RCA, Hussein Zahir and Ibrahim Naem. These swallows had pale faintly streaked, rather than chestnut, underparts. They were therefore not of the race H. d. hyperythra from Sri Lanka, but presumably winter migrants from further north.

*Streak-throated Swallow Hirundo fluvicola*
One individual was seen on Lh. Naifaru by MB and Ian Rowlands on 18 February 1999. It had a dark back, dark brown head, and thin black streaks on the upper breast and throat; it was smaller and shorter-tailed than nearby Barn Swallows H. rustica.

*House Sparrow Passer domesticus*
A small feral population has been present on the northeast corner of Malé since at least December 1998. Ash and Shafeeg (1994) stated that a small population was building up in the port area of Malé in the early 1990s. However, it had disappeared by the mid-1990s (RCA, pers. obs.).

**Forest Wagtail Dendronanthus indicus**
Lamsfuss (1998) recorded this species from the Maldives without giving details. His record was based on a definite sighting from K. Meerufenfushi in November 1996 by M. J. and J. P. Pointon (G. Lamsfuss, in litt. April 2001). Since the Forest Wagtail is a winter visitor to SW India and Sri Lanka, its occurrence in the Maldives is not entirely unexpected.

**DISCUSSION**
Ash and Shafeeg (1994) recorded 150 species from the Maldives, although this was reported as 147 species as a result of miscounting. In addition, Ash and Shafeeg (1994) noted ten species for which specific identification was not definite, including Common Kingfisher, which has now been confirmed.

Seventeen additional species of birds in the Maldives are reported here, 12 for the first time, plus an unidentified phalarope. This raises the total number of bird species positively known from the islands to 167. It seems likely that very many more species are still to be recorded. In particular, it is likely that northern winter migrants are grossly under-represented in the current list. This situation is in large part due to the dearth of observing effort, as has been noted before by Phillips (1963) and Ash and Shafeeg (1994). There is also a lack of knowledge about the local ecology of even the commonest species occurring in the Maldives. As just one example, it is remarkable that the regular occurrence of thousands of Lesser Noddies in the far north of the Maldives, on what is probably a feeding ground of major international importance for this species, has been unreported until now.

A particular problem for ornithologists in the Maldives is some Maldivians’ habit of importing and
keeping exotic birds as pets. Ash and Shafeeg (1994) rightly cautioned that 'the significance of this custom may not be appreciated in the assessment of records of unusual vagrants' (see account for Brahmny Kite, above). Many imported birds subsequently escape. Presumed escapes observed by the senior author since 1994 include the Sulphur-crested Cockatoo Cacatua galerita, Budgerigar Melopsittacus undulatus, Bank Myna Acridotheres ginnianus, Red-whiskered Bulbul Pycnonotus jocosus, Scaly-breasted Munia Lonchura punctulata and Java Sparrow Lonchura oryzivora. The importing of birds is not a new practice. The parakeets seen by Stanley Gardiner on Hulhule in January 1900 (Gadow and Gardiner 1903) seem as likely to have been escapes from nearby Malé as vagrants from Sri Lanka as he suggested.

The habit of catching birds is also widespread in the Maldives, and has been for generations. This has undoubtedly contributed to the decline in numbers of many species in the Maldives, which is widely reported by fishermen, birdcatchers and others. However, other factors must also play a role, including increasing disturbance of roosting and nesting islands, and degradation or destruction of terrestrial habitats (Ash and Shafeeg 1994, Anderson 1996). In addition, decreases in bird populations within the Maldives are likely to be a reflection of more general declines in global populations as a result of similar problems further afield.

In recognition of the vulnerability of bird populations and the importance of seabirds to the valuable tuna fishery, a number of conservation measures have been enacted in recent years. The White Tern Gygis alba, was protected by Public Notice 1-96/34 of 5 June 1996, under the Environment Protection and Preservation Act (4/93). Twenty-two other bird species were protected by Public Notice 10C/00/24 of 11 July 1999, also under the Environment Protection and Preservation Act. Of these 22 species, 17 were seabirds:

- **GULL-BILLED TERN** *Gelochelidon nilotica*
- **LESSER CRESTED TERN** *Sternula bengalensis*
- **GREAT CRESTED TERN** *Sternula bergii*
- **ROSEATE TERN** *Sterna dougallii*
- **BLACK-NAPED TERN** *Sternula sumatranana*
- **COMMON TERN** *Sterna hirundo*
- **SAUNDERS’S TERN** *Sterna sandersi*
- **BRIDLED TERN** *Sterna anaethetus*
- **SOOTY TERN** *Sterna fuscata*
- **BROWN NODDY** *Anous stolidus*
- **LESSER NODDY** *Anous tenuirostris*
- **WHITE-TAILED TROPICBIRD** *Phaethon lepturus*
- **GREAT FRIGATEBIRD** *Fregata minor*
- **LESSER FRIGATEBIRD** *Fregata ariel*
- **WEDGE-TAILED SHEARWATER** *Puffinus pacificus*
- **FLESH-FOOTED SHEARWATER** *Puffinus carneipes*
- **AUDUBON’S SHEARWATER** *Puffinus lherminieri*

The other five species protected in July 1999 were 'endemic varieties':

- **ASIAN KOEL** *Eudynamys scolopacea*
- **WHITE-BREASTED WATERHEN** *Amaurornis phoenicurus maldivus*
- **SOUTHERN MALDIVIAN LITTLE HERON** *Butorides striatus albidulus*
- **CENTRAL MALDIVIAN LITTLE HERON** *Butorides striatus didii*
- **MALDIVIAN POND HERON** *Ardeola grayii phillipsi*

Finally, the island of G. A. Hithaadhoo, which is of national significance as a roosting site for frigatebirds, and a nesting site of other species, was also protected under the Environment Protection and Preservation Act.

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**REFERENCES**


