

Threatened Birds of Asia:

The BirdLife International Red Data Book

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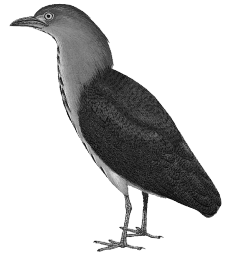
JAPANESE NIGHT-HERON

Gorsachius gosisagi

Critical —

Endangered C1

Vulnerable A1c; A2c; D1



This low-density forest waterbird has a very small, declining population which qualifies it as Endangered. This is primarily a result of deforestation in its breeding and wintering ranges.

DISTRIBUTION The Japanese Night-heron (see Remarks 1) breeds mainly in Japan, although breeding has been reported at least once from Taiwan and it has been recorded in spring and summer in the Far East of Russia and South Korea. It is a passage migrant in coastal mainland China, Hong Kong and Taiwan. The main wintering area appears to be in the Philippines, but it has also been recorded in winter from southern Japan, Taiwan, Brunei, Indonesia and Palau (to USA) (see Hancock and Kushlan 1984), with an erroneous report from Thailand (see Remarks 2).

■ **RUSSIA** The species is a rare visitor to Primorye and Sakhalin, mainly recorded in spring in the coastal lowlands, with records (by province) as follows:

■ **Primorye Ol'ga bay** (Zaliv Ol'gi), one on the upper reaches of the Avvakumovka river, September 1977, four at the Avvakumovka river mouth, May 1980, one on the upper reaches of the Vasil'kovka river, May 1980 (Labzyuk 1981, 1990); **Kedrovaya Pad' Nature Reserve**, Peter the Great bay, one seen, May 1976, one seen, May 1978 (Glushchenko and Shibnev 1984); **Vladivostok** (town), Peter the Great bay, one collected, May 1921 (Omel'ko and Omel'ko 1981); near **Boysmana bay**, Peter the Great bay, one seen, May 1983 (Nazarov 1986); **Bol'shoi Pelis island**, Peter the Great bay, one, June 1967 (Labzyuk *et al.* 1971);

■ **Sakhalin** (the dates for these two records are confused; one applies to one, one to the other); southern **Sakhalin island**, one collected, either June 1935 or March 1937 (Takahashi 1937); **Moneron island**, one collected, either June 1935 or March 1937 (Takahashi 1937, Nechaev 1991).

■ **JAPAN** This species has been recorded in all parts of Japan (including Hokkaido, where it is very rare), but it is only known to breed in Honshu, Shikoku, Kyushu and on the Izu islands. It occurs widely on passage, and there are winter records in south-western Japan and the Nansei Shoto (Ryukyu islands). Records (by island and prefecture) are as follows:

Hokkaido Kamikawa district, central Hokkaido, undated (Wildlife Information Center, Hokkaido 1985, Ogawa 1985 in Brazil 1991); **Ko-jima** island, Matsumae-gun, O-shima, undated (WBSJ 1980, Ogawa 1985 in Brazil 1991);

Honshu ■ **Aomori** Enga Shrine (untraced; mapped as Aomori prefecture), "rare visitor", undated (Wada 1922), no recent records (Aomori Prefecture 1978); ■ **Iwate** "rare" (Iwate Prefecture Government 1978): unspecified locality, March 1911 (male in YIO); **Hei-zaki**, Omoe, Miyako-shi, April 1985 (WBSJ Miyako Chapter database); **Kawashiro**, Omoe, Miyako-shi, May 1996 (WBSJ Miyako Chapter database); ■ **Miyagi Funagata-yama** (Mt Funagata-zan), 1,500 m, undated (Kumagaya 1951); ■ **Yamagata Tobi-shima** island, Sakata-shi, one, May 1994 (*Birder* 94/7); ■ **Fukushima** suburb of **Kooriyama-shi**, undated (Yuasa 1953); wetland near Kagamiishi-machi railway station, **Iwase-gun**, heard calling, July 1953 (Yuasa 1953); Gohyaku-gawa river valley (untraced), heard calling, undated (Yuasa 1953); near Mt Kinbirosan (untraced), recorded annually, 1948–1950 (Yuasa 1953); Otamagabuchi river valley (untraced), heard calling, undated (Yuasa 1953); ■ **Tochigi Shiobara-machi**, Nasu-gun, "breeding calls" heard, April 1961 (Kiyosu 1965), "summer visitor", undated (Tochigi Prefecture

1984); **Nikko-shi**, “summer visitor”, undated (Tochigi Prefecture 1984); **Kanuma-shi**, nest with two chicks and one unfertilised egg, June 1964 (Kiyosu 1965); **Utsunomiya-shi**, “summer visitor”, undated (Tochigi Prefecture 1984); **Motegi-machi**, Haga-gun, nest containing three eggs, July 1960 (Kiyosu 1965); ■ **Gunma Kannon-yama** (Mt Kannon-san), Takasaki-shi, breeding recorded, undated (Ugi 1973); ■ **Saitama** near Tone-gawa river dam, **Honjo-shi**, April 1968 (Kosugi 1978); Kiroko, **Ogawa-machi**, Hiki-gun, one heard calling, April 1998, and presumably breeding nearby (H. Uchida *in litt.* 1998); **Nagatoro-machi**, Chichibu-gun, one collected, August 1985, recently fledged juvenile collected, August 1996 (H. Uchida *in litt.* 1998); **Yorii-machi**, Oosato-gun, breeding confirmed, June 1988 (H. Uchida *in litt.* 1998); **Minano-machi**, Chichibu-gun, July 1975 (Kosugi 1978); **Yoshimi-machi**, Hiki-gun, at Kuroiwa, breeding confirmed in July 1972 and one seen in May 1986, but now extinct following the reduction of forest at this site, at Nagayatsu, breeding confirmed in July 1968, June 1970, June 1973 and June 1974, and one seen in June 1969, but now extinct following the reduction of forest at this site for the construction of houses (H. Uchida *in litt.* 1998); **Ranzan-machi**, Hiki-gun, undated (Kosugi 1978); **Higashimatsuyama-shi**, breeding confirmed at Godo in April 1980, but this site now cleared for a golf course, nest found at Chigosawa in June 1982, but with no recent records following the reduction of forest at this site (H. Uchida *in litt.* 1998); **Yoshida**, Ranzan-machi, Hiki-gun, seen, May 1972, breeding confirmed, June 1980, but this site now cleared for the construction of a factory (H. Uchida *in litt.* 1998); **Chichibu-gun**, one collected, December 1884, April 1885, June 1950 (H. Uchida *in litt.* 1998, two specimens in YIO), 1953 (Kosugi 1978); **Hiki-gun**, at Nameagwa-machi, breeding confirmed in June 1972 and June 1978, and seen in June 1980, but this site now cleared for a golf course, at Nishifurusato, Ogawa-machi, breeding confirmed in May 1978, one seen in June 1980, and two heard calling in April 1997 (H. Uchida *in litt.* 1998), at Tamagawa-mura, heard calling in July 1997 (Tanaka *per* H. Uchida *in litt.* 1998); **Iruma-gun**, recorded at Kawakado, April 1916, “probably breeding” at Koma, April 1918, (Momiya and Nomura 1919); **Misato-machi**, Kodama-gun, breeding recorded, June 1976 (Kosugi 1978); **Sayama-ko** lake, 1969 (Kosugi 1978); ■ **Chiba** Takizawa, **Togane-shi**, one, June 1924 (YIO database); **Mobara**, “a breeding bird”, arriving in early April (unspecified year) (Saito 1923); Toda-mura, **Ichihara-shi**, breeding recorded, July 1951 (H. Uchida *in litt.* 1998); Mamenbara, **Otaki-machi**, Isumi-gun, one, April 1996 (*Birds* 96/7); Sanbu-gun (untraced), November 1924 (juvenile female in YIO); unspecified locality, Chiba (Shimosa), undated (juvenile male in ANSP); ■ **Tokyo Kumotori-yama** (Mt Kumotori), June 1960 (WBSJ 1975); Hatanaka, **Oume-shi**, heard calling, April 1996 and May 1998 (Okazaki *per* H. Uchida *in litt.* 1998); **Mitake-san** mountain, recorded annually, 1948–1975 (WBSJ 1975), May 1977, May and August 1984, June 1985 (WBSJ Okutama Chapter database); **Okutama-ko** (Ogochi dam), Okutama-machi, Nishitama-gun, dead bird found, August 1979 (G. Kato *in litt.* 1998); **Hinode Park**, Hinode-machi, Nishitama-gun, one heard and seen, April 1996 (WBSJ Okutama Chapter database); Meiji Shrine, **Tokyo**, May 1965 (WBSJ 1975); **Fussa-shi**, May 1968, May 1972 (WBSJ 1975); **Nerima-ku**, immature, November 1965 (WBSJ 1975); **Itsukaichi-cho**, Akiruno-shi, breeding recorded from about 1945 to 1972, “non-breeding record”, August 1970 (WBSJ 1975); **Tsukiji**, Tokyo city, two young birds collected, undated (Momiya 1918); Uehara-cho, **Yoyogi**, Shibuya-ku, June 1942 (WBSJ 1975); **Hachioji-shi**, May 1911 (specimen in YIO) and nearby, October 1911 (juvenile male in YIO); “Kojimaki-ku” (probably now in Shibuya), Tokyo, one collected at **Fujimi-cho**, May 1916, first-winter bird collected at Y. Yamashina’s house, May 1916 (two specimens in YIO); **Tama Hills**, May 1963, breeding recorded at Tama Zoo, May–August 1974 (WBSJ 1975); **Takao-san** mountain, May 1940, May 1943, June 1964, May 1967 (WBSJ 1975), heard calling, May 1941 (H. Uchida *in litt.* 1998); Tamagawa-gakuen, **Machida-shi**, October 1965 (WBSJ 1975); **Haneda**, “apparently not common”, one seen from 1905–1924 (Kuroda 1931a); Shioya (untraced), Oohachiga-mura, three nests found, July 1914 (H. Uchida *in litt.* 1998); ■ **Kanagawa Kawasaki-shi**, irregularly recorded, 1986–1991 (WBSJ Kanagawa Chapter 1992); **Sagamihara-shi**, irregularly recorded,

1986–1991 (WBSJ Kanagawa Chapter 1992); near **Yokohama**, April 1883 (two specimens in AMNH, USNM), 1883, 1894, 1897, April (unspecified year), undated (five specimens in BMNH), regularly recorded, 1986–1991 (WBSJ Kanagawa Chapter 1992); **Hadano-shi**, one heard at Shinsei-ko lake, May 1980 (Hadano Hon-cho Primary School 1981), irregularly recorded, 1986–1991 (WBSJ Kanagawa Chapter 1992); **Isehara-shi**, irregularly recorded, 1986–1991 (WBSJ Kanagawa Chapter 1992), “very rare breeding bird”, undated (WBSJ Kanagawa Chapter 1995); **Ono-mura** forest, Kouza-gun, April 1923 (female in YIO); **Yamakita-machi**, irregularly recorded, 1986–1991 (WBSJ Kanagawa Chapter 1992); Manda, **Hiratsuka-shi**, Ooiso-cho (Naka-gun), April 1919 (specimen in YIO; also WBSJ Kanagawa Chapter 1992); **Ooiso-cho** (Naka-gun), at Asahi-mura, April 1919 (specimen in YIO), at Mt Koma-yama, April 1922 (specimen in YIO), at Nishikoiso, Ooiso-machi, April 1926, April 1951 (two specimens in YIO); **Ashigarashimo-gun**, “very rare breeding bird”, undated (WBSJ Kanagawa Chapter 1995); Oofune, **Kamakura-shi**, juvenile, July 1976 (WBSJ Kanagawa Chapter 1980, 1992); **Zushi-shi**, regularly recorded, 1986–1991 (WBSJ Kanagawa Chapter 1992); **Hayama-machi**, before 1986 (WBSJ Kanagawa Chapter 1992); **Yokosuka**, before 1986 (WBSJ Kanagawa Chapter 1992); **Odawara-shi**, before 1986 (WBSJ Kanagawa Chapter 1992); **Miura Peninsula**, “very rare breeding bird”, undated (WBSJ Kanagawa Chapter 1995); **Futago-yama** mountain, undated (Brazil 1987); **Hakone-machi**, before 1986 (WBSJ Kanagawa Chapter 1992); **Yugawara-machi**, before 1986 (WBSJ Kanagawa Chapter 1992); Aoyama, **Tsukui-machi**, Tsukui-gun, breeding recorded, June 1976 (WBSJ Kanagawa Chapter 1980); Kiyokawa-mura (untraced), before 1986 (WBSJ Kanagawa Chapter 1992); ■ **Niigata Iwafune-gun**, October 1917 (juvenile male in YIO); **Sado island**, May 1954 (Kiyosu 1965); **Joetsu-shi** area, “rare summer visitor”, undated (Nakamura 1994); ■ **Toyama Onagawa, Kamiichi-machi**, Nakaniikawa-gun, June 1977 (WBSJ Toyama Chapter database); **Taniguchi** (Tani), Yamadamura, Nei-gun, September 1974 (WBSJ Toyama Chapter database); Nagakura, **Tateyama-machi**, Nakaniikawa-gun, September 1976 (WBSJ Toyama Chapter database); **Fukumitsumachi**, Nishitonami-gun, May 1966 (WBSJ Toyama Chapter database); **Arimine**, Oyama-machi, Kaminiikawa-gun, May 1966 (WBSJ Toyama Chapter database); **Taira-mura**, Higashitonami-gun, March 1974 (WBSJ Toyama Chapter database); **Toga-mura**, Higashitonami-gun, July 1979 (WBSJ Toyama Chapter database); ■ **Ishikawa Hegura-jima** island, May 1978 (Ishikawa Yacho no Kai 1979 in Brazil 1991), May 1986, May 1987, May 1988 (Brazil 1991); Nota-san mountain, **Kanazawa-shi**, one, April 1999 (*Birder* 99/7); ■ **Fukui Sabae-shi**, breeding recorded at Kawashima-cho, May 1973, one seen at Misato-san mountain, May 1981 (Fukui Prefecture 1982); Yoshino-cho, **Matsuoka-cho**, Yoshida-gun, one, April 1981 (Fukui Prefecture 1982); ■ **Yamanashi Yosawa, Kosuge-mura**, Kitatsuru-gun, singles, April 1979 and June 1984 (G. Kato *in litt.* 1998); **Nishiyatsushiro-gun**, nest with five chicks, June 1955, nest with four chicks, June 1957, nest with four chicks, July 1957 (Kiyosu 1965); near **Yamanaka-ko** lake, Asahigaoka, Yamanakako-mura, Minamitsuru-gun, April 1939 (WBSJ Yamanashi Chapter database; male in YIO); middle reaches of the **Fuji-gawa** (Fuji-kawa) river, south-western Yamanashi, four nests found, undated (Hinata 1949); ■ **Gifu** recorded in northern and eastern Gifu (Gifu Prefecture 1983), including Kitayama park, **Takayama-shi**, June 1994 (WBSJ Gifu Chapter database); **Hachiman-cho**, Gujo-gun, breeding confirmed, three juveniles, June 1985 (WBSJ 1986), heard at night, April 1994 (WBSJ Gifu Chapter database); **Hirose**, Kokubu-mura, “Hida-gun”, heard calling, May–June 1914 (H. Uchida *in litt.* 1998); Sendanbayashi, **Nakatsugawa-shi**, May 1995 (WBSJ Gifu Chapter database); **Ono-gun**, two found dead at Shioya, Nyukawa-mura, May 1917 (WBSJ Gifu Chapter database), October 1917 (two juvenile males in YIO); Ikeda-yama mountain, **Ikeda-cho**, Ibi-gun, April 1994, April 1995 (WBSJ Gifu Chapter database); **Gifu-shi**, at Dachibokubora, June 1996 (WBSJ Gifu Chapter database), one at Kinka-zan mountain, September 1996 (Y. Sakai *in litt.* 1998); Wakinoshima-cho, **Tajimi-shi**, March 1995 (WBSJ Gifu Chapter database); ■ **Shizuoka** recorded in many places in western Shizuoka but nowhere

regular and common (H. Kogayu *in litt.* 1998): **Fuji-san** mountain (Mt Fuji, Fujiyama), July 1910 and undated (two clutches of eggs in BMNH); **Sunto-gun** (Suntou-gun), February 1912 (two specimens in YIO); Hiramatsu, Kuno village, **Abe-gun**, Shizuoka-shi, July 1906 (male in YIO); **Shibakawa-cho**, Fuji-gun, at Shimoyuno, April 1993 and April–May 1996, one at Okubo, June 1997 (WBSJ Minamifuji Chapters database); tributary of the **Fuji-gawa** river, six nests with eggs found in a small swamp, 210 m, May (year unspecified) (Hyuga 1949 in Austin and Kuroda 1953); “Fuji west”, July 1952 (immature female in USNM); **Mishima-shi**, one, June 1996 (WBSJ Minamifuji Chapters database); **Takegawa-shi**, April 1914 (specimen in YIO), near Take-gawa river, Ogasa-gun, April 1914 (male in YIO); **Ogasa-yama** mountain, “regular summer bird”, undated (Brazil 1987); ■ **Aichi Nagoya**, undated (specimen in YIO); unspecified localities, Aichi (Owari), undated (two specimens in AMNH); ■ **Kyoto Ashu**, rare summer visitor (Government of Kyoto 1993); **Kurama-yama** (Kuramasan) mountain, rare summer visitor (Government of Kyoto 1993); **Yawata-shi**, rare summer visitor (Government of Kyoto 1993); Kokedera-oku (untraced), rare summer visitor (Government of Kyoto 1993); ■ **Osaka Minoo-shi**, recorded until 1990 (Ueta-san *per* H. Uchida *in litt.* 1998); Hiraoka Park, **Higashiosaka-shi**, one, May 1993 (*Birder* 93/7); South Osaka Bird Park, **Suminodo-cho** (Suminoe-ku), one, May 1996 (*Birder* 96/7–2), one, August 1997 (*Birder* 97/11); ■ **Nara Jogo**, **Asuka-mura**, Takaichi-gun, one, May–June 1993 (*Birder* 93/8); ■ **Wakayama Tanabe-shi**, one, October 1995 (WBSJ Wakayama Chapter database); ■ **Tottori Uemachi**, **Tottori-shi**, one, July 1967 (WBSJ Tottori Chapter database); ■ **Shimane Oki islands**, 1922, 1950 and 1963 (Uchida 1982); **Matsue-shi**, “many” captured near the city, c.1892, recorded in May 1968 and October 1975 (Uchida 1982); **Hori-kawa** river, Taishamachi, Hikawa-gun, July 1981 (Uchida 1982); Hakuta-cho, **Nogi-gun**, June 1970 (Uchida 1982); ■ **Hiroshima Taishaku-kyo**, Tojo-cho, Hiba-gun, one, May 1997 (WBSJ Hiroshima Chapter database); Chichikino, Sanwa-cho, **Jinseki-gun**, nest (in a walnut tree in cedar forest) with three eggs, June 1995 (WBSJ Hiroshima Branch 1998); **Konu-cho**, Konu-gun, one, September 1992, feeding along forest streams (WBSJ Hiroshima Branch 1998); **Midorii Water Purification Plant**, Asaminami-ku, Hiroshima-shi, dead bird found, August 1982 (WBSJ Hiroshima Chapter database); Takezu-yama mountain, **Geihoku-cho**, Yamagata-gun, one, August 1983 (WBSJ Hiroshima Chapter database); **Uga-kyo**, Asa-cho, Asakita-ku, Hiroshima-shi, three fledglings found, August 1991 (WBSJ Hiroshima Branch 1998); **Take-cho**, Yamagata-gun, one injured bird taken into captivity, May 1989 (WBSJ Hiroshima Branch 1998); Kumadani, **Miyachi**, Kuchiwa-cho, Hiba-gun, Hiroshima-shi, two, April 1994 (WBSJ Hiroshima Branch 1998); Fujio, **Shinichi-cho**, Ashina-gun, one, May 1995 (WBSJ Hiroshima Branch 1998); **Fukuyama-shi**, breeding confirmed (incubating birds seen) at Kusadoyama park in May 1986 and at Green Line (road), Kumano-cho in May 1989 (WBSJ Hiroshima Branch 1998); Sobagajo-yama mountain, Happonmatsu-cho, **Higashihiroshima-shi**, one, November 1997 (WBSJ Hiroshima Chapter database); Gongen-zan mountain forest, Ono-cho, **Saeki-gun**, one, June 1986 (WBSJ Hiroshima Branch 1998); **Hiroshima-shi**, single birds at Kamiyasu and Nabara-kyo, Asaminami-ku, in May 1984, one at Kitaoko-cho, Minami-ku, in June 1986 (WBSJ Hiroshima Chapter database), one feeding in “wetlands” on Ushita-yama mountain, Higashi-ku, April 1987, and one at Higashihakushima-cho, Naka-ku, was treated and released after colliding with a building, March 1993 (WBSJ Hiroshima Branch 1998); Nutahigashi-cho, **Mihara-shi**, one, January 1987 (WBSJ Hiroshima Branch 1998); ■ **Yamaguchi Mi-shima** island, Hagi-shi, April–May 1989 (WBSJ Yamaguchi Chapter database); **Yamaguchi-shi**, one collected, October 1950 (WBSJ Yamaguchi Chapter 1976); **Ube-shi**, April 1965, a retrap from the previous year in the Philippines (McClure 1974; also Hancock and Kushlan 1984); unspecified locality, April 1965 (Yoshii *et al.* 1967 in Brazil 1991); **O-shima** island, Izu islands, 1887 (Stejneger 1887d in Brazil 1991), July 1924 (Kiyosu 1965), breeding recorded, June 1966, “non-breeding record”, June 1968 (WBSJ 1975), observed and considered likely to be breeding, May–June 1970–1973 (Higuchi 1973a);

To-shima island, June 1937 (adult in YIO), nest and four eggs collected, July 1937 (Yamashina 1942), observed and considered likely to be breeding, May–June 1970–1973 (Higuchi 1973a);

Nii-jima island, observed and considered likely to be breeding, May–June 1970–1973 (Higuchi 1973a);

Kozu-shima island, observed and considered likely to be breeding, May–June 1970–1973 (Higuchi 1973a);

Miyake-jima island, May 1887 (Stejneger 1887d in Brazil 1991, WBSJ 1975), undated (but probably late nineteenth century) (specimen in YIO), nest and three eggs collected, July 1934 (Yamashina 1942), May 1947 (male in MCZ), “not uncommon”, often heard calling shortly after dusk, with three nestlings obtained near Igaya Mura, July 1952, single birds seen at lake Tairo, May 1953 (Moyer 1957, female in USNM), April 1959 (specimen in YPM), May 1961 (WBSJ 1975), nests or fledglings found, May–June 1970–1973 (Higuchi 1973a), April 1972 (T. Hidaka *in litt.* 1998), seen, April 1974, April 1976, May 1977, April–May 1997 (T. Hidaka and H. Uchida *in litt.* 1998), seen, April 1995, seen in a wilderness area in the north-west of the island and possibly breeding, summer 1996, but with a rapid decline on the island following the introduction of weasels (J. T. Moyer *in litt.* 1996);

Mikura-jima island, nest and four eggs collected, July 1934 (Yamashina 1942), nests or fledglings found, May–June 1970–1973 (Higuchi 1973a, WBSJ 1975);

Hachijo-jima island, juvenile female collected, July 1924, one collected, January 1925 (WBSJ 1975, Momiyama 1932 in Brazil 1991, two specimens in YIO), observed and considered likely to be breeding, May–June 1970–1973 (Higuchi 1973a);

Aoga-shima island, 1954 (WBSJ 1975), observed and considered likely to be breeding, May–June 1970–1973 (Higuchi 1973a), one seen south of Maruyama, April 1996 (Yane 1998);

Kita-iwo-jima island, Iwo (Volcano) islands, May 1926 and April 1939 (two specimens in YIO), one, May 1954 (WBSJ Tokyo Chapter database);

Iwo-jima island, Iwo (Volcano) islands, May 1926 (adult in YIO);

Shikoku ■ **Tokushima Mitani**, Morito, Kamojima-cho, Oe-gun, breeding recorded, June 1983 (WBSJ Tokushima Chapter 1985); Ogoshi, **Hiwasa-cho**, Kaifu-gun, one, May 1996 (WBSJ Tokushima Chapter database); unspecified locality, December 1887 (male in YIO); ■ **Kagawa** Kujima village (untraced; mapped as Kagawa prefecture), November 1909 (juvenile in YIO); ■ **Ehime Amagoi-yama** mountain, Honai-cho, Nishiuwa-gun, one, April 1995 (*Birder* 95/7); **Kikuma-cho**, Ochi-gun, one, April 1996 (WBSJ Ehime Chapter database); **Suiha** Park, Kinsha-cho, Iyomishima-shi, one, May 1998 (WBSJ Ehime Chapter database); Hiuchi, **Saijo-shi**, one, May 1993 (WBSJ Ehime Chapter database); **Matsuyama-shi**, one at Rengeji Temple, Tani-machi, April 1996 (WBSJ Ehime Chapter database), one at Ueno-cho Park, April 1999 (*Birder* 99/6); Tagami-yama mountain, Kamiagawa, **Iyo-shi**, singles, June 1993 and May 1998 (WBSJ Ehime Chapter database); **Izushi-yama** mountain, Nagahama-cho, Kita-gun, one, June 1994 (*Birder* 94/8); Myoga-dani valley, **Hijikawa-cho**, Kita-gun, one, May 1998 (WBSJ Ehime Chapter database); **Yawatahama-shi**, singles at Tani in May 1993 and April 1998, and singles at Noji, Hizu-cho, in May 1995 and June 1995 (WBSJ Ehime Chapter database); Komenono (untraced), Ehime University research forest, breeding confirmed, undated (Ishihara 1982); ■ **Kochi** Sawatari, **Yusuhara-cho**, Takaoka-gun, one, April 1995 (*Birder* 95/7); Towada-mura, **Hata-gun**, breeding confirmed, before 1978 (Ishihara 1982);

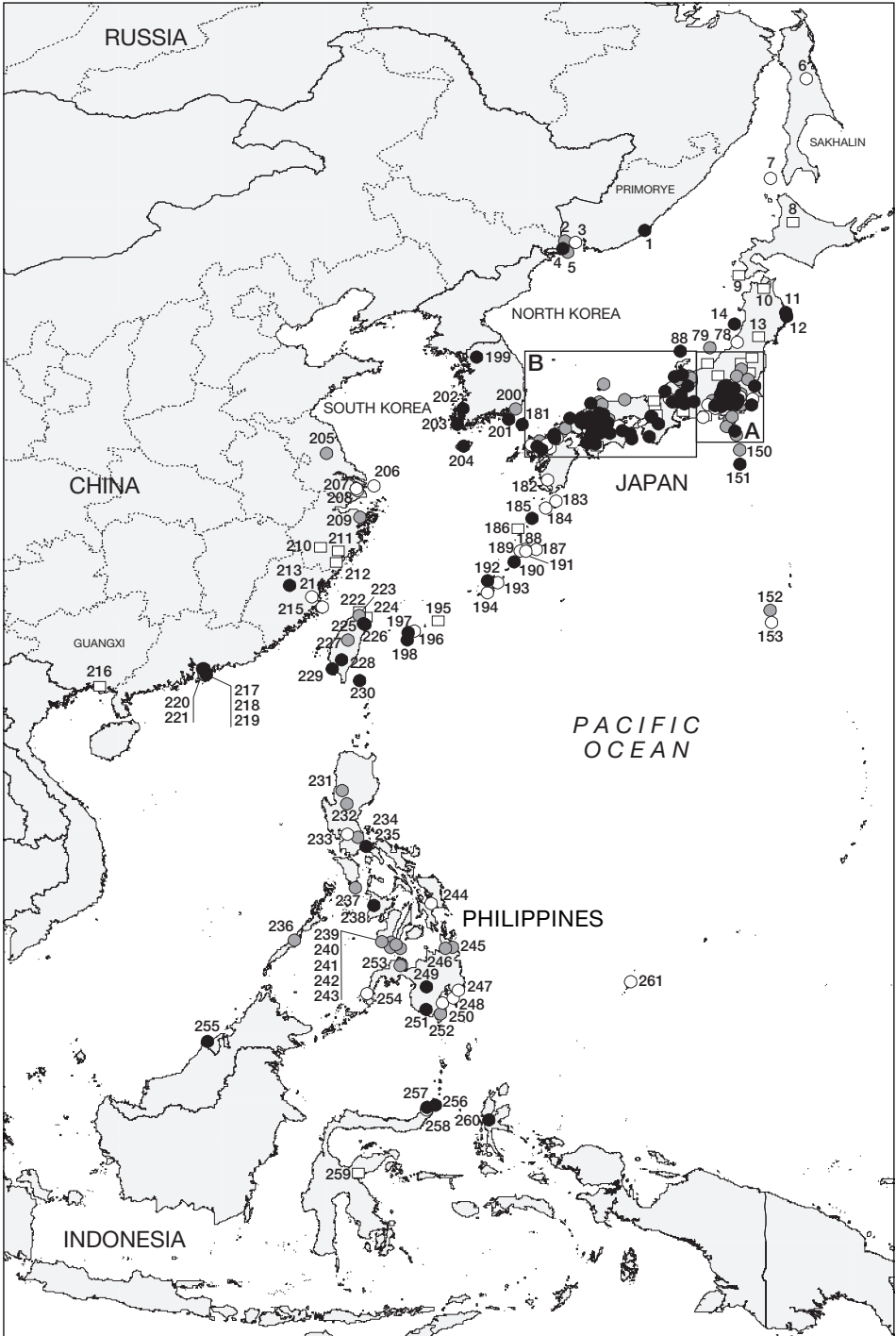
Kyushu ■ **Fukuoka** Tonda reservoir, **Wakamatsu-ku**, Kitakyushu-shi, one, August 1989 (WBSJ Kitakyushu Chapter database); **Kitakyushu-shi**, single birds at Hanao-yama mountain, Yawatahigashi-ku, in June 1989, at Keisho-machi, Yawatahigashi-ku, in June 1995 and April 1996, at Yawatahigashi-ku, in April 1996 and at Yawatani-shi-ku, in April 1998 (WBSJ Kitakyushu Chapter database); Shii, **Kokura-ku** (Kokuraminami-ku), Kitakyushu-shi, one, May 1997 (WBSJ Kitakyushu Chapter database); **Shiida-machi**, Chikujo-gun, one, April 1927 (WBSJ Fukuoka Chapter database); **Itoshima-gun**, adult captured, February 1952

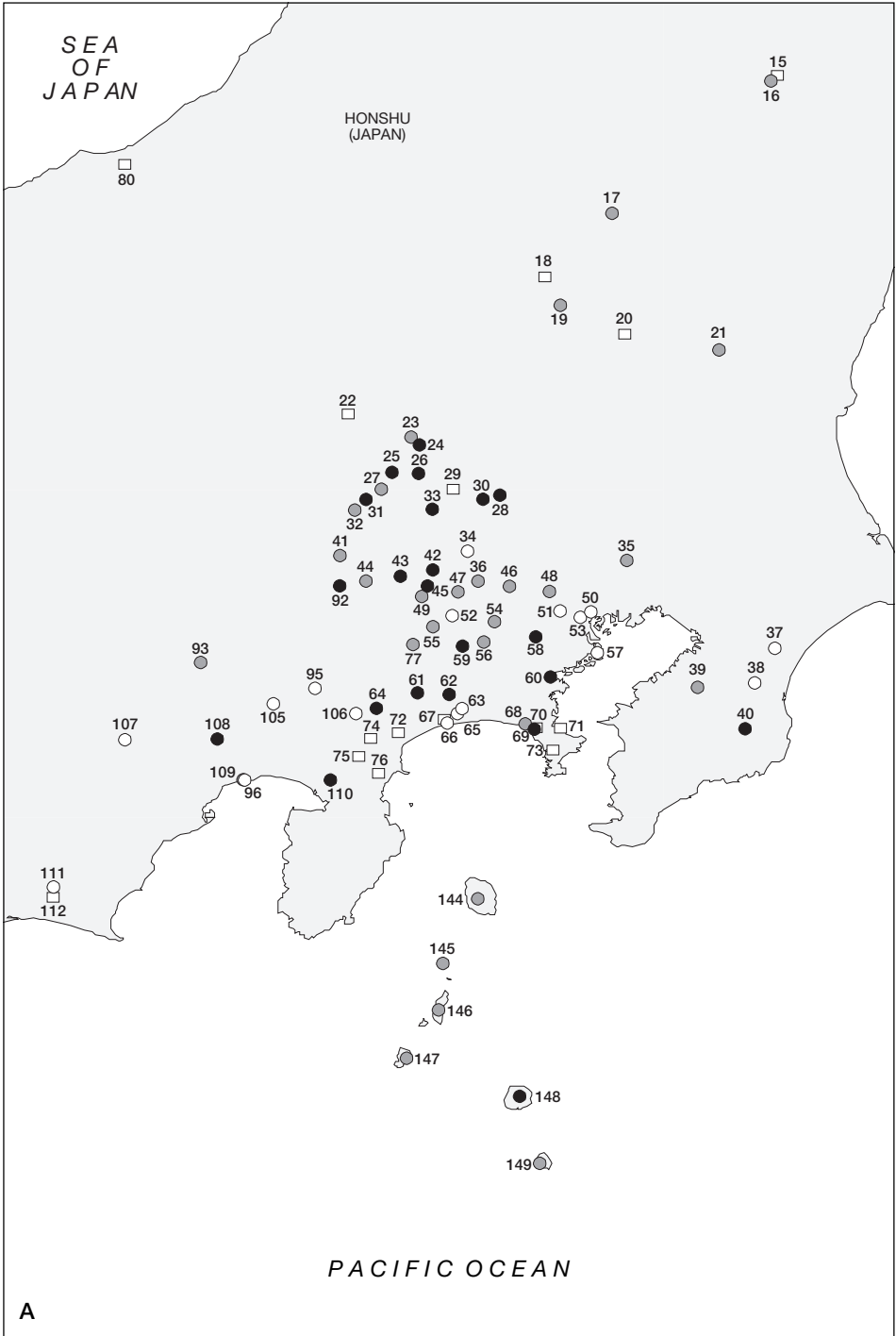
(Kuranari 1962); **Fukushima-cho**, Yame-gun, April 1927 (male in YIO); **Yame-gun**, immature captured, April 1927 (Kuranari 1962); Murakata-gun (untraced), one captured, August 1923 (Kuranari 1962); ■ **Saga Sefuri-san** mountain, “rare summer visitor” (Wild Bird Society of Saga 1997); **Kiyama-cho**, Mikayi-gun, heard calling, June 1947 (Kuranari 1962); **Kyuragi dam**, Kyuragi-machi, Higashimatsuura-gun, one heard, April 1998 (*Birder* 98/7); Kurokamiyama mountain, **Arita-machi**, “rare summer visitor” (Wild Bird Society of Saga 1997); Yutokuin, **Kashima-shi**, “rare summer visitor” (Wild Bird Society of Saga 1997); ■ **Nagasaki Tsushima** islands, undated (Brazil 1991), one, late spring 1998 (*Birder* 98/7), one, May 1999 (*Birder* 99/

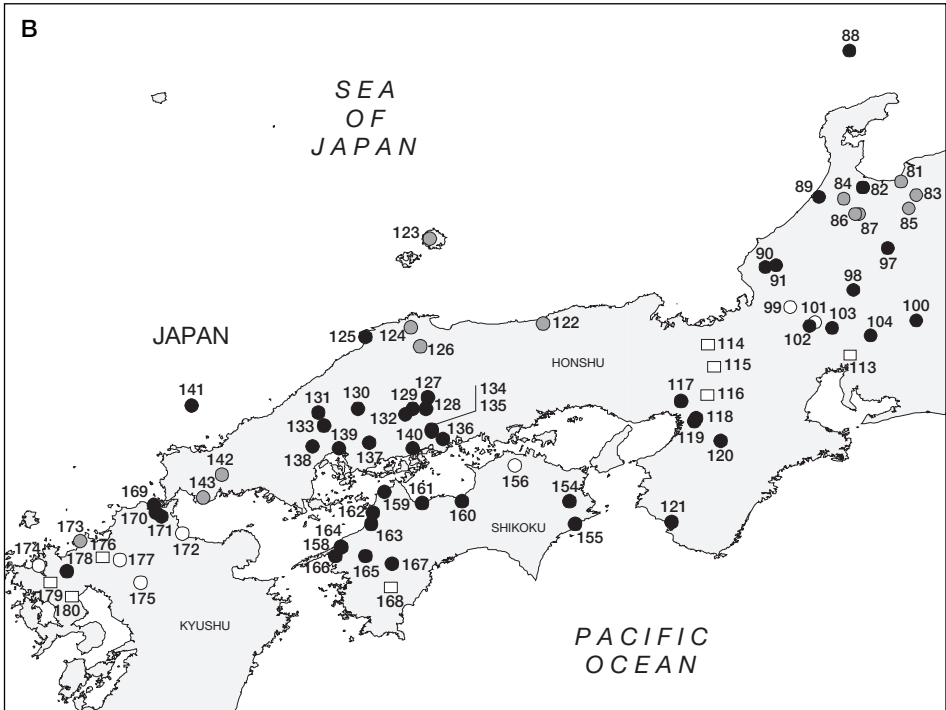
The distribution of Japanese Night-heron *Gorsachius goisagi* (map opposite; sequence for Philippines not as in text):

(1) Ol'ga Bay; (2) Kedrovaya Pad' Nature Reserve; (3) Vladivostok; (4) Boysmana Bay; (5) Bol'shoy Pelis Island; (6) Sakhalin island; (7) Moneron island; (8) Kamikawa; (9) Ko-jima; (10) Enga Shrine; (11) Hei-zaki; (12) Kawashiro; (13) Funagata-yama; (14) Tobishi-shima; (15) Kooriyama-shi; (16) Iwase-gun; (17) Shiobara-machi; (18) Nikko-shi; (19) Kanuma-shi; (20) Utsunomiya-shi; (21) Motegi-machi; (22) Kannon-yama; (23) Honjo-shi; (24) Ogawa-machi; (25) Nagatoro-machi; (26) Yorii-machi; (27) Minano-machi; (28) Yoshimi-machi; (29) Ranzan-machi; (30) Higashimatsuyama-shi; (31) Yoshida; (32) Chichibu-gun; (33) Hiki-gun; (34) Iruma-gun; (35) Misato-machi; (36) Sayama-ko; (37) Togane-shi; (38) Mobara; (39) Ichihara-shi; (40) Otaki-machi; (41) Kumotori-yama; (42) Oume-shi; (43) Mitake-shi; (44) Okutama-ko; (45) Hinode Park; (46) Tokyo; (47) Fussa-shi; (48) Nerima-ku; (49) Itsukaichi-cho; (50) Tsukiji; (51) Yoyogi; (52) Hachioji-shi; (53) Fujimi-cho; (54) Tama Hills; (55) Takao-san; (56) Machida-shi; (57) Haneda; (58) Kawasaki-shi; (59) Sagami-hara-shi; (60) Yokohama; (61) Hadano-shi; (62) Isehara-shi; (63) Ono-mura; (64) Yamakita-machi; (65) Hiratsuka-shi; (66) Ooiso-cho; (67) Ashigarashimo-gun; (68) Kamakura-shi; (69) Zushi-shi; (70) Hayamachi; (71) Yokosuka; (72) Odawara-shi; (73) Miura peninsula; (74) Futago-yama; (75) Hakone-machi; (76) Yugawara-machi; (77) Tsukui-machi; (78) Iwafune-gun; (79) Sado island; (80) Joetsu-shi; (81) Kamiichi-machi; (82) Taniguchi; (83) Tateyama-machi; (84) Fukumitsu-machi; (85) Arimine; (86) Taira-mura; (87) Togamura; (88) Hegura-jima; (89) Kanazawa-shi; (90) Sabae-shi; (91) Matsuoka-cho; (92) Kosuge-mura; (93) Nishiyatsushiro-gun; (94) unallocated; (95) Yamanaka-ko; (96) Fuji-gawa; (97) Takayama-shi; (98) Hachiman-cho; (99) Hirose; (100) Nakatsugawa-shi; (101) Ono-gun; (102) Ikeda-cho; (103) Gifu-shi; (104) Tajimi-shi; (105) Fuji-san; (106) Sunto-gun; (107) Abe-gun; (108) Shibakawa-cho; (109) Fuji-gawa; (110) Mishima-shi; (111) Kakegawa-shi; (112) Ogasa-yama; (113) Nagoya; (114) Ashu; (115) Kurama-yama; (116) Yawata-shi; (117) Minoo-shi; (118) Higashiosaka-shi; (119) Suminodo-cho; (120) Asuka-mura; (121) Tanabe-shi; (122) Tottori-shi; (123) Oki Islands; (124) Matsue-shi; (125) Hori-kawa; (126) Nogi-gun; (127) Taishaku-kyo; (128) Jinseki-gun; (129) Konu-cho; (130) Midori Water Purification Plant; (131) Geihoku-cho; (132) Uga-kyo; (133) Kake-cho; (134) Miyauchi; (135) Shinichi-cho; (136) Fukuyama-shi; (137) Higashihiroshima-shi; (138) Saeki-gun; (139) Hiroshima-shi; (140) Mihara-shi; (141) Mi-shima; (142) Yamaguchi-shi; (143) Ube-shi; (144) O-shima; (145) To-shima; (146) Nii-jima; (147) Kozu-shima; (148) Miyake-jima; (149) Mikura-jima; (150) Hachijo-jima; (151) Aoga-shima; (152) Kita-iwo-jima; (153) Iwo-jima; (154) Mitani; (155) Hiwasa-cho; (156) Kujima village; (157) unallocated; (158) Amagoi-yama; (159) Kikumacho; (160) Suiha; (161) Saijo-shi; (162) Matsuyama-shi; (163) Iyo-shi; (164) Izushi-yama; (165) Hijikawa-cho; (166) Yawatahama-shi; (167) Yusu-hara-cho; (168) Hata-gun; (169) Wakamatsu-ku; (170) Kitakyushu-shi; (171) Kokura-ku; (172) Shiida-machi; (173) Itoshima-gun; (174) Fukushima-cho; (175) Yame-gun; (176) Sefurisan; (177) Kiyama-cho; (178) Kyuragi dam; (179) Arita-machi; (180) Kashima-shi; (181) Tsushima; (182) Kagoshima-shi; (183) Tanega-shima; (184) Yaku-shima; (185) Nakano-shima; (186) Takara-jima; (187) Kikai-shima; (188) Kominato; (189) Amami-ooshima; (190) Tokuno-shima; (191) Asato; (192) Ie-shima; (193) Okinawa island; (194) Naha; (195) Miyako-jima; (196) Ishigaki-jima; (197) Iriomote-jima; (198) Hateruma-jima; (199) Kuri; (200) Pusan; (201) Hong Islet; (202) Hampyong; (203) Chin-do; (204) Cheju island; (205) Jangsu province; (206) Shawaishan Island; (207) Shanghai; (208) Longhua; (209) Ningbo; (210) Lishui county; (211) Ouhai county; (212) Wenzhou city; (213) Nanping city; (214) Fuzhou; (215) Haitan Dao; (216) Beibu bay; (217) Ho Sheung Heung; (218) San Tin; (219) Kowloon; (220) Victoria Peak; (221) Pok Fu Lam; (222) Chinshan; (223) Yangmingshan; (224) Chu-an; (225) Ilan; (226) Hsinnan; (227) Puli; (228) Shanping; (229) Kaohsiung; (230) Lanyu Island; (231) Sinipsip; (232) Dalton Pass; (233) Manila; (234) Pangil; (235) Quezon National Park; (236) Kabigaan; (237) Semirara; (238) Mt Balabag; (239) Basay; (240) Lake Balinsasayao; (241) Dumaguete; (242) Mantiquil; (243) Tag-ibo; (244) Tigbao; (245) Sibahay; (246) Mt Hilong-hilong; (247) Mt Mayo; (248) Bitogan; (249) Carmen; (250) Lacaron; (251) Lake Sebu; (252) Mt Tuduk; (253) Mt Malindang; (254) Ayala; (255) Panaga; (256) Batu Putih; (257) Manado; (258) Rurukan; (259) Morowali; (260) Pintatu; (261) Koror.

○ Historical (pre-1950) ● Fairly recent (1950–1979) ● Recent (1980–present) □ Undated







The distribution of Japanese Night-heron *Gorsachius goisagi* (map A): (15) Kooriyama-shi; (16) Iwase-gun; (17) Shiobara-machi; (18) Nikko-shi; (19) Kanuma-shi; (20) Utsunomiya-shi; (21) Motegi-machi; (22) Kannon-yama; (23) Honjo-shi; (24) Ogawa-machi; (25) Nagatoro-machi; (26) Yorii-machi; (27) Minano-machi; (28) Yoshimi-machi; (29) Ranzan-machi; (30) Higashimatsuyama-shi; (31) Yoshida; (32) Chichibu-gun; (33) Hiki-gun; (34) Iruma-gun; (35) Misato-machi; (36) Sayama-ko; (37) Togane-shi; (38) Mobara; (39) Ichihara-shi; (40) Otaki-machi; (41) Kumotori-yama; (42) Oume-shi; (43) Mitake-san; (44) Okutama-ko; (45) Hinode Park; (46) Tokyo; (47) Fussa-shi; (48) Nerima-ku; (49) Itsukaichi-cho; (50) Tsukiji; (51) Yoyogi; (52) Hachioji-shi; (53) Fujimi-cho; (54) Tama Hills; (55) Takao-san; (56) Machida-shi; (57) Haneda; (58) Kawasaki-shi; (59) Sagami-hara-shi; (60) Yokohama; (61) Hadano-shi; (62) Isehara-shi; (63) Ono-mura; (64) Yamakita-machi; (65) Hiratsuka-shi; (66) Ooiso-cho; (67) Ashigarashimo-gun; (68) Kamakura-shi; (69) Zushi-shi; (70) Hayama-machi; (71) Yokosuka; (72) Odawara-shi; (73) Miura Peninsula; (74) Futago-yama; (75) Hakone-machi; (76) Yugawara-machi; (77) Tsukui-machi; (80) Joetsu-shi; (92) Kosuge-mura; (93) Nishiyatsushiro-gun; (94) unallocated; (95) Yamanaka-ko; (96) Fuji-gawa; (105) Fuji-san; (106) Sunto-gun; (107) Abe-gun; (108) Shibakawa-cho; (109) Fuji-gawa; (110) Mishima-shi; (111) Wakagawa-shi; (112) Ogasa-yama; (144) O-shima; (145) To-shima; (146) Nii-jima; (147) Kozu-shima; (148) Miyake-jima; (149) Mikura-jima.

(map B): (81) Kamiichi-machi; (82) Taniguchi; (83) Tateyama-machi; (84) Fukumitsu-machi; (85) Arimine; (86) Taira-mura; (87) Toga-mura; (88) Hegura-jima; (89) Kanazawa-shi; (90) Sabae-shi; (91) Matsuoka-cho; (97) Takayama-shi; (98) Hachiman-cho; (99) Hirose; (100) Nakatsugawa-shi; (101) Ono-gun; (102) Ikeda-cho; (103) Gifu-shi; (104) Tajimi-shi; (113) Nagoya; (114) Ashu; (115) Kurama-yama; (116) Yawata-shi; (117) Minoo-shi; (118) Higashiosaka-shi; (119) Suminodo-cho; (120) Asuka-mura; (121) Tanabe-shi; (122) Tottori-shi; (123) Oki Islands; (124) Matsue-shi; (125) Hori-kawa; (126) Nogi-gun; (127) Taishaku-kyo; (128) Jinseki-gun; (129) Konu-cho; (130) Midorii Water Purification Plant; (131) Geihoku-cho; (132) Uga-kyo; (133) Kake-cho; (134) Miyauchi; (135) Shinichi-cho; (136) Fukuyama-shi; (137) Higashihirushima-shi; (138) Saeki-gun; (139) Hiroshima-shi; (140) Mihara-shi; (141) Mi-shima; (142) Yamaguchi-shi; (143) Ube-shi; (154) Mitani; (155) Hiwasa-cho; (156) Kujima village; (157) unallocated; (158) Amagoi-yama; (159) Kikumacho; (160) Suiha; (161) Saijo-shi; (162) Matsuyama-shi; (163) Iyo-shi; (164) Izushi-yama; (165) Hijikawa-cho; (166) Yawatahama-shi; (167) Yusu-hara-cho; (168) Hata-gun; (169) Wakamatsu-ku; (170) Kitakyushu-shi; (171) Kokura-ku; (172) Shiida-machi; (173) Itoshima-gun; (174) Fukushima-cho; (175) Yame-gun; (176) Sefuri-san; (177) Kiyama-cho; (178) Kyuragi Dam; (179) Arita-machi; (180) Kashima-shi.

○ Historical (pre-1950) ● Fairly recent (1950–1979) ● Recent (1980–present) □ Undated

8); unspecified locality, c.1886 (two specimens in BMNH), April 1888 (specimen in YIO); ■ **Kagoshima Kagoshima-shi**, at Somuta-cho, May 1931, at Kusamuta, October 1931 (immature in YIO); unspecified localities, “uncommon winter migrant”, one collected, February (year unspecified) (Horii 1917);

Tanega-shima island, Kumage-gun, 1924 (Kuroda 1926, specimen in YIO);

Yaku-shima island at Miyanoura, April 1922 (male in YIO; also Kuroda 1925b in Brazil 1991);

Nakano-shima island, Tokara islands, Toshimamura, one, May 1997 (T. Hidaka *in litt.* 1998);

Takara-jima island, Tokara islands, March and April (year unspecified) (Anezaki 1999);

Kikai-shima island, May 1922 (second-year male in YIO);

Kominato (Komi), Naze-shi, Amami-ooshima island, May 1921, May 1922 (two males in YIO; also Kiyosu 1965);

Amami-ooshima island, April–May 1928 (Kiyosu 1965); **Asato**, Naze-shi, April 1919 (male in YIO; also Kiyosu 1965);

Tokuno-shima island, March 1990 (Ishida *et al.* 1990a);

Ie-shima island, one, April 1990 (McWhirter *et al.* 1996; also OSJ 2000);

Okinawa island, April 1904, May 1928 (Kiyosu 1965, male in AMNH); **Naha** (Shuri city), May 1891, July/August 1938 (two specimens in YIO);

Miyako-jima island, undated (Brazil 1991);

Ishigaki-jima island, collected, January 1927 (Kiyosu 1965), one collected, April 1928 (Kobayashi 1930);

Iriomote-jima island, January 1983 (Brazil 1987, 1991);

Hateruma-jima island, Hateruma, Taketomicho, Yaeyama-gun, one, October 1993 (*Birder* 94/1, McWhirter *et al.* 1996).

■ **KOREA** ■ **SOUTH KOREA** This species is known by a small number of records, mainly in spring, but it may be a rare and local (but regular) summer visitor to the south-east of the Korean peninsula (Gore and Won 1971). Records (by province) are as follows: ■ **Kyonggi and Seoul** Tongkunung, **Kuri** (Guri) city, one, April 2000 (Lee Ki-sup *in litt.* 2000); ■ **South Chungchong** Kapsa (presumably Kapsan) (not mapped), near Kongju, one, April 1989 (C. F. Mann *in litt.* undated); ■ **South Kyongsang** **Pusan**, singles collected, May (on Mt Kudok, Seo-Gu: Lee Woo-shin *in litt.* 1998) and June 1966 (Gore and Won 1971); **Hong islet**, one, May 2000 (Kim Hwajung *per* Lee Ki-sup *in litt.* 2000); ■ **South Cholla** **Hampyong**, near Kwangju city, one, May 2000 (Lee Kyungkyu *per* Lee Ki-sup *in litt.* 2000); Mt Chumchul, **Chin-do** (Jin-do) island, seen, July 1986 (Lee Woo-shin *in litt.* 1998); ■ **Cheju** Erimok, **Cheju island**, one, 1980–1983 (Park 1984).

■ **CHINA** ■ **MAINLAND CHINA** This species is a rare passage migrant in south-eastern China, mainly in coastal regions, with records (by province) as follows:

■ **Jiangsu** unspecified locality, a total of seven specimens collected in Jiangsu, Shanghai and Ningbo (in Zhejiang) in 1908, May 1917, March 1937, April 1956, spring 1961 and May 1965 (Cui Zhixing *per* Gao Yuren *in litt.* 1998), but note that the reports from Jiangsu could be based solely upon records from Shawaishan island (see Remarks 3);

■ **Shanghai Shawaishan island** (see Remarks 3), May 1903, May 1911 (three specimens in BMNH; also Sowerby 1943), “a good many recorded”, April 1907 and May 1908 (La Touche 1925–1934, four specimens in MCZ), undated (male in AMNH); **Shanghai**, male collected, March 1911, two immature females collected, May 1911 (three specimens in ZMH), female collected, May 1920 (Sowerby 1943), one collected at Zocé, near Shanghai, May (unspecified year) (La Touche 1925–1934); **Longhua** (Lung-hua), near Shanghai, male collected, May 1917 (Sowerby 1943); unspecified locality, undated (but see Jiangsu above) (Cui Zhixing *per* Gao Yuren *in litt.* 1998);

■ **Zhejiang Ningbo**, collected, undated (but see Jiangsu above) (Cui Zhixing *per* Gao Yuren *in litt.* 1998); **Lishui county**, collected, undated (Zhuge Yang 1990); **Ouhai county**, collected, undated (Zhuge Yang 1990); **Wenzhou city**, collected, undated (Zhuge Yang 1990);

■ **Fujian Nanping city**, November 1985 (specimen in NEFUCN); near **Fuzhou** (Foochow), July 1903 (male in BMNH), female collected, May 1906, male collected, April 1910 (La Touche 1913, two specimens in MCZ); **Haitan Dao** (Haitang island), off Fuzhou, “small loose colonies of this night bird seen working on the flooded plains on Haitang island during cloudy days”, undated (Caldwell and Caldwell 1931); Xiamen city (Amoy), one bird seen probably of this species, September 1893 (La Touche 1925–1934); unspecified locality, February 1927 (specimen in ASCN);

■ **Jiangxi** northern **Beibu bay** (Gulf of Tonkin), “one or two records”, undated (Zhou Fang *et al.* 1999);

■ **Guangdong** Pearl river estuary (Zhujiang river), winter visitor, undated (Cheng Tso-hsin 1987), but not included in Cheng Tso-hsin (1976) or Zhao Zhengjie (1995), and possibly based upon records in Hong Kong;

■ **Jiangxi** listed as a probable migrant by Hancock and Kushlan (1984), but this possibly in error for Jiangsu province.

■ **HONG KONG** This species appears to be a scarce passage migrant through Hong Kong, recorded from the following widely scattered (mainly wooded) sites (all except one from HKBWS database): **Ho Sheung Heung**, one, April 1982; **San Tin**, Cassino Lines, New Territories, one, November 1977 (C. Viney *in litt.* 1999), one at nearby Ngong Ping, Lantau island, October 1981; Hong Kong Polytechnic, **Kowloon**, one, April 1988; **Victoria Peak**, one, November 1974; **Pok Fu Lam**, one, December 1972.

■ **TAIWAN** This species is probably a rare passage migrant and winter visitor, which occasionally stays to breed, with records as follows: **Chinshan**, Taipei, recorded in “recent years” (Wang Chia-hsiung *et al.* 1991); **Yangmingshan**, Taipei, collected at “Yang-Foh-Lee” and “Pai-Tu Mountain”, May 1958 and April 1959 (four specimens in USNM); **Chu-an**, Ilan, recorded in “recent years” (Wang Chia-hsiung *et al.* 1991); near **Ilan**, single birds in December 1980, October 1983 and December 1987 (Severinghaus 1989); **Hsinnan**, Ilan county, two, 1995 (CWBF database); **Puli**, Nantou county, March 1960, in wooded mountain area in valley (male in USNM); near **Shanping** Forest Reserve, c.50 km north-west of Kaohsiung, nest with three young, 700 m, August–September 1987 (Severinghaus 1989, Sykes 1996a; also Wang Chia-hsiung *et al.* 1991); near **Kaohsiung** (Takow), March 1865 (male in BMNH), single birds seen, December 1993 (twice), March 1994 (Sykes 1996a); **Lanyu island**, one, January 1988 (Severinghaus 1989).

■ **PHILIPPINES** The chief wintering area of this species appears to be on the Philippines, where specific records are as follows:

Luzon (*western*) **Sinipsip**, Buguias, Benguet, 2,400 m, October 1974 (two specimens in DMNH); **Dalton Pass**, October 1963 and November 1970 (two females in PNM), with two ringed there in 1965, three in 1966, eight in 1967 and two in 1970 (McClure and Leelavitt 1972); (*central*) **Quezon National Park**, March 1993 (D. Allen *in litt.* 1993); near **Manila**, 1880s (Wardlaw Ramsay 1884, 1886; two specimens in BMNH, Dickinson *et al.* 1991); **Pangil**, Laguna, 6 m, April 1971 (male in CM);

Semirara April/May 1970 (Alcala and Alviola 1970);

Leyte **Tigbao**, on mountain, November 1945 (Parkes 1973, specimen in CM; see Ecology);

Negros (see Remarks 4) **Lake Balinsasayao** in the period January 1977 to July 1978 (Alcala and Carumbana 1980); **Dumaguete**, November 1953 (female in AMNH; hence Rand and Rabor 1960); **Basay**, Bayawan, December 1959 (specimen in UPLB); **Mantiquil** at Dayungan, Siaton, 900–1,250 m, December 1966 (specimen in UPLB);

Panay Mt Balabag at Hamtang Forest, near Valderrama, Antique province, 900 m, March 1995 (E. Curio and Y. de Soye verbally 1997, 1998; details to be published);

Siquijor Tag-ibo, San Juan, December 1954 (two males in FMNH; also Rand and Rabor 1960);

Mindanao (eastern) Mt Hilong-hilong at Siwod, 900–1,200 m, April 1963 (female in USNM); **Sibahay**, Lanuza, below 150 m, May 1963 (female in DMNH); **Mt Mayo** at Limot, Mati, March 1949 (female in PNM); **Bitogan**, Sigaboy (Governor Generoso), March 1930 (females in DMNH and YIO); (*central*) **Dumanhog** (untraced), Kawit, Lanao del Norte, October 1967 (specimen in UPLB); **Carmen**, Davao del Norte, sea-level, February 1980 (female in DMNH); **Lacaron**, Malita, Davao del Sur, February 1947 (female in FMNH); **Lake Sebu** at Sitio Siete, South Cotabato, January 1993 (Evans *et al.* 1993a); **Mt Tuduk** at Datal-Bukay, Cotabato, May 1966 (specimen in UPLB); (*western*) **Mt Malindang**, 1,050–1,350 m, at Masawan, April 1956 (male in FMNH; also Rand and Rabor 1960); apparently at **Ayala**, before 1910 (McGregor 1909–1910);

Palawan Kabigaan, Aborlan, August 1964 (the only bird ringed in the period 1964–1970) (McClure and Leelavit 1972, McClure 1974, Dickinson *et al.* 1991).

■ **BRUNEI** There is a single record: **Panaga**, one photographed, October 1985, originally identified as Malayan Night-heron *Gorsachius melanolophus* (Elkin 1993; also Mann 1988).

■ **INDONESIA** There are several non-breeding records of the species from Sulawesi and on Halmahera in Maluku, as follows:

Sulawesi ■ **North Sulawesi Batu Putih**, late 1984 or early 1985 (Andrew and Holmes 1990); **Manado** at the airport, October 1988 (Andrew and Holmes 1990); **Rurukan**, Minahassa, September 1884 (female in SNMB), one collected, February (unspecified year) (Blasius 1897: 393 in White and Bruce 1986); ■ **South-East Sulawesi Morowali**, head of Tomari bay, Kabupaten of Poso, central Sulawesi, undated (Scott 1989);

Halmahera unspecified locality, juvenile, December 1874 (Salvadori 1880–1882); **Pintatu**, Wasile district, November 1982 (male in USNM).

■ **PACIFIC ISLANDS** There is a single record of this species from Palau (to USA): **Koror** (Coror), Palau (Pelew), January 1932 (specimen in YIO; see Baker 1951).

POPULATION No reliable population estimate is available for this species. Rose and Scott (1997) suggested that its population was less than 10,000 and declining, and the relative paucity of recent records (see Distribution) indicates that it could now number just a few thousand individuals. In the early twentieth century, its skins and eggs were freely and cheaply available in Japan, indicating that it was (at least locally) common (Hancock and Kushlan 1984). It was apparently still common in parts of Japan until the 1940s to 1950s (Kiyosu 1965), and it remained locally common until the 1970s (with several nests found at some localities), but by the 1980s and 1990s it had disappeared from many of its former breeding haunts (H. Uchida *in litt.* 1998; see Distribution). For example, it was known to breed at many localities in Fukushima prefecture, Honshu, in the past, but its numbers declined in the 1970s (Wild Bird Society of Fukushima 1979). On Miyake-jima in the Izu islands, it was a “not uncommon” breeding bird in 1957 (Moyer 1957), but it went into steep decline following the introduction of weasels in the 1970s (see Threats) and is now close to extinction there (J. T. Moyer *in litt.* 1996). In Hong Kong and on Taiwan, the number of records has declined since the 1980s, despite the large increase in birdwatchers in both these places during the 1990s (see Distribution). It is an uncommon winter visitor in the Philippines (Dickinson *et al.* 1991), but it needs to be emphasised that this is a cryptic, crepuscular inhabitant of dense forest whose status consequently has not been and cannot here be assessed with any great confidence.

ECOLOGY Habitat Austin and Kuroda (1953) described this nocturnal species as “so shy and retiring that little is known of its habits”, although its low, simple croaking can be heard repeated monotonously at intervals during the night, and it sometimes ventures out in daytime in cloudy, rainy weather. In its breeding range in Japan it favours heavily forested areas in hills and on the lower slopes of mountains where there are watercourses and damp areas (Austin and Kuroda 1953, WBSJ 1980, Brazil 1991, H. Uchida *in litt.* 1998). The breeding sites in Yamanashi and Saitama prefectures are between 50 and 240 m (H. Uchida *in litt.* 1998), but it has been recorded as high as 1,500 m in Miyagi prefecture (Kumagaya 1951). It has been found breeding in coniferous forest of Japanese cypress *Chamaecyparis obtusa* and Japanese cedar *Cryptomeria japonica*, and in broadleaf forest of chestnut *Castanea crenata*, Japanese chestnut oak *Quercus acutissima* and Japanese oak *Q. serrata* (WBSJ 1980, H. Uchida *in litt.* 1998); Hinata (1949) believed it to be quite tolerant of degraded forest. On migration in mainland China, it occurs in tall trees or in bamboo forest on hills near the sea or along rivers (Zhuge Yang 1990). In the Philippines it has been found in dark, deeply shaded forest, near water, from August to early May (Dickinson *et al.* 1991); this was perhaps taken from Rand and Rabor (1960), who said that it “spends the day on the ground in dark and deeply shaded parts of the forest, or under a dense clump of trees near a stream”, reporting that their specimen from Mt Malindang was “on the ground in dense forest, by a small stream”. Elevations of Philippine records extend up to at least 1,350 m, with one perhaps anomalous occurrence of two birds (possibly recent arrivals) from 2,400 m (Luzon), while the single Leyte record was from “high on mountain” (see Distribution).

Food It usually feeds only at night, and eats small stream crabs and other crustaceans, earthworms, insects and small fish (Yamashina 1941, Austin and Kuroda 1953, WBSJ 1980). It forages in swamps, paddyfields and farmland, as well as in forest, and it is mainly crepuscular, feeding after dark but probably not usually late at night (H. Uchida *in litt.* 1998). Elkin's (1993) record concerned a bird feeding in daylight on swampy ground bordering a garden.

Breeding Breeding commences in late May to June, when nests are built in trees c.7–20 m above the ground and about 1–4 m from the trunk (Yamashina 1941, WBSJ 1980). Nests have been found in Japanese cypress, Japanese cedar, Japanese fir, pines, Japanese oak and Japanese zelkova *Zelkova serrata* (Yamashina 1941, Hinata 1949). It nests solitarily, but several pairs may be found nesting in moderate proximity in favoured localities, for example in Yamanashi prefecture, where nests were found 250–500 m apart (Hinata 1949), and in Saitama prefecture, where nests were found 600–1,200 m apart (H. Uchida *in litt.* 1998). The clutch of 3–4 eggs is laid from 9–17 May, with incubation (by both male and female) taking 17–27 days and fledging a further 35–37 days (Yamashina 1941, Austin and Kuroda 1953, WBSJ 1980, Brazil 1991, H. Uchida *in litt.* 1999). Eggs have been laid as late as 4–20 July, suggesting that double or replacement clutches may occur (Austin and Kuroda 1953), although there is no direct evidence for this (H. Uchida *in litt.* 1998).

Migration This species arrives in Honshu in early April and departs in late October (Austin and Kuroda 1953, WBSJ 1980), but birds have been reported to leave the breeding sites in Saga prefecture on Kyushu as early as August (Wild Bird Society of Saga 1997). It presumably winters in small numbers in southern Japan, as there are records from the Nansei Shoto in January and March, Shikoku in November, and as far north as Kyushu in February (Austin and Kuroda 1953, Vaurie 1965, Environment Agency 1988 in Brazil 1991; see Distribution). It is a passage migrant in Zhejiang province in mainland China, recorded from late April to mid-May, and in November (Zhuge Yang 1990). That it is probably only a winter visitor to the Philippines from Japan (Rand and Rabor 1960) is now widely accepted as true (Hancock and Elliott 1978, Hancock and Kushlan 1984, del Hoyo *et al.* 1992). A full-grown bird ringed at Aborlan, Palawan, in August 1964—the earliest autumn date for the species in the Philippines—was controlled in southern Honshu, Japan, in April 1965 (McClure

1974). All other dated records in the Philippines lie in the period October to May, and the few Indonesian and single Pacific records all fall in the period September–February (see Distribution).

THREATS *Habitat loss* The main threat to the Japanese Night-heron is almost certainly deforestation in both its breeding and non-breeding ranges. *Japan* The forest on hills and lower mountain slopes that it favours as a breeding habitat is under considerable pressure for development in Japan (WBSJ 1980). For example, it has abandoned several sites in Saitama prefecture where it was found nesting in the 1970s and early 1980s, because two have been cleared for golf courses, one for the construction of a factory and one for the construction of houses, and the forest area has been reduced at two further sites for unspecified reasons (H. Uchida *in litt.* 1998). Although this species has been reported to be able to persist in degraded forest in its breeding range (Hinata 1949), this may have been an over-simplification; certainly the development of dense scrub undergrowth in forest and on abandoned farmland is believed to reduce suitable feeding areas for it (H. Uchida *in litt.* 1998; see Distribution). On Miyake-jima in the Izu islands, several volcanic eruptions during 2000 badly affected its forest habitat (J. T. Moyer *in litt.* 2000; see Threats under Styan's Grasshopper Warbler *Locustella pleskei*). *Taiwan* The preferred habitat types of this species are under great threat from land-use changes around Kaohsiung (Sykes 1996a). *Philippines* In the Philippines the rapid loss of lowland primary forest seems very likely to have affected the species; for example, the almost total destruction of forest on Siquijor (see Evans *et al.* 1993b) must have rendered that island virtually unusable by the species.

Hunting It has probably been hunted in many parts of its range, at least in the past, although Hinata (1949) noted the farmers in Yamanashi prefecture in Japan left it alone because of its bad taste. Wang Chia-hsiung *et al.* (1991) reported that six specimens were found at local product shops in Taiwan between 1970 and 1973. Three birds said to be of this species were confiscated from illegal traders in Hong Kong and released at Mai Po marshes in 1986, although the identification may not have been accurate (Chalmers 1990). Nevertheless, this indicated that forest night-herons *Gorsachius* are captured and traded in parts of southern China, probably including this species and Malayan Night-heron (B. Hau *in litt.* 1998), as well as White-eared Night-heron *G. magnificus* (see the relevant section of the account for that species).

Introduced predators This species declined rapidly on Miyake-jima in the Izu islands, where it was formerly abundant, following the introduction of Siberian weasel *Mustela sibirica* there in the early 1970s; no nests have been located on Miyake-jima (or Mikura-jima) since the early 1970s, although the weasels tend to be concentrated near human developments where food is available in the form of rubbish, and there is therefore a possibility that some Japanese Night-herons may perhaps still nest in the relatively inaccessible forested parts of the islands (J. T. Moyer *in litt.* 1996).

MEASURES TAKEN *Legislation* *Japan* The Japanese Night-heron is on the Red List of Japan, which means that its conservation importance is recognised and it can be used as a reference species in environmental impact assessments for development projects (Environment Agency of Japan *in litt.* 1999).

Protected areas *Russia* It was recorded twice in the Kedrovaya Pad' Nature Reserve in the 1970s (Glushchenko and Shibnev 1984). *Japan* The Japanese Night-heron has been recorded in or near to the following protected areas (all information taken from the Environment Agency of Japan's list of prefectural protection areas): in Iwate, Miyako-shi Miyako-wan Protection Area (28 km², near Hei-zaki); in Miyagi, Funagata Protection Area (55 km²); in Yamagata, Tobi-shima Protection Area (2 km²); in Fukushima, Inawashiro Protection Area (109 km², near several former localities); in Tochigi, Houkigawa Protection

Area (0.4 km²), Nikko Protection Area (269 km², including a “special protection area” of 34 km²) and Sanuki Kannon Protection Area (0.2 km²), all at or near to former breeding localities; in Gunma, Misato Protection Area (11 km², c.10 km south of Kannon-yama); in Saitama, Okuchichibu Protection Area (65 km², probably includes several former localities), Kanna-ko Protection Area (3 km², c.10 km from Misato-machi, Minano-machi and Nagatoro-machi) and Arakawa-nanbu Protection Area (4 km², near Nishifurusato and Kiroko); in Chiba, Isumi Protection Area (53 km², c.10 km east of Mamenbara); in Kanagawa, Tsukui Protection Area (21 km², including a “special protection area” of 0.3 km², includes Aoyama) and Hakone Protection Area (100 km², including a “special protection area” of 12 km², near several former localities, including Nishikoiso); in Toyama, Arimine Protection Area (75 km², including a “special protection area” of 8 km², 15 km from Nagakura); in Ishikawa, Kahokugata Protection Area (4 km², within 20 km of Nota-san mountain and Fukumitsu-machi in Toyama); in Fukui, Kuzuryu-gawa Dam Protection Area (11 km², Yoshino being on the middle reaches of the Kuzuryu-gawa river); in Yamanashi, Chichibu Renpo Protection Area (134 km², including a “special protection area” of 6 km², 20–30 km west of Takao-san and Okutama-ko in Tokyo) and Yamanaka-ko Protection Area (14 km², including a “special protection area” of 6 km², c.15 km from Yosawa); in Gifu, Hakusan National Protection Area (381 km², also in Ishikawa and Ishikawa prefectures, near Kitayama and Hirose, this large NPA perhaps still supporting the species), Nagara-gawa Protection Area (8 km², including a “special protection area” of 0.7 km², Dachibokubora and Kinka-zan mountain being in or near this area) and Funatsuke Protection Area (6 km², c.10 km from Ikeda-yama mountain); in Shizuoka, Asagiri-kogen Minami Protection Area (9 km², Shimoyuno and Okubo being in or near this area); in Shiga, Biwa-ko Protection Area (722 km², including a “special protection area” of 0.1 km², to the east of Kurama-san mountain in Kyoto); in Nara, Kurotaki-Omine Sankei Protection Area (107 km², c.15 km south of Jogo); in Tottori, Sendai-gawa Ryuiki Protection Area (6 km², Uemachi being in this area) and Shinji-ko Protection Area (88 km², near Matsue-shi in Shimane prefecture); in Hiroshima, Matsunagawan Protection Area (16 km², c.10 km west of Kusadoyama park and c.15 km south of Fujio) and Numata-gawa Protection Area (11 km², near Nutahigashi-cho and Sobagajoyama mountain); in the Izu islands, Miyake-jima Oyama Protection Area (3 km²) and Mikurajima Protection Area (6 km², including a “special protection area” of 3 km²); in Tokushima, Akui-gawa Protection Area (1 km², c.5 km south of Mitani); in Fukuoka, Yukuhashi Protection Area (13 km², within 20 km of Tonda reservoir, Shii, Yawatanishi-ku, Hanao-yama mountain, Yawatahigashi-ku and Keisho-machi); in Saga, Hokusanzan Dam Protection Area (9 km², including a “special protection area” of 0.7 km², c.10 km from Sefuri-san mountain); in Nagasaki, Tara-dake Protection Area (67 km², including a “special protection area” of 2 km², c.15 km from Yutoku-in, Kashima-shi in Saga prefecture); in Kagoshima, Toshima Protection Area (84 km², Nakano-shima in the Tokara islands being in this area). *Philippines* In the Philippines it is quite likely that the species is concentrated more and more into forested reserves although no records derive from areas currently protected under NIPAS. A recent observation was made in Quezon National Park on Luzon, a protected area that retains some habitat suitable for the species and requires formal designation in the national system (see Appendix). It has also been recorded in the Mts Baloy/Madja-as range on Panay (covering the Mt Baloy and Mts Madja-as/Hantod-tubig “key sites”) and the Mt Talinis/Twin lakes area on Negros (covering the Eastern Cuernos de Negros and lake Balinsasayao “key sites”), two areas proposed for receipt of FPE funding (see Appendix).

MEASURES PROPOSED *Legislation* This species should be officially protected in its other range states, including in Russia, South Korea, mainland China and Taiwan, and the Philippines. Legislation to prevent the sale of this (and other threatened) species in markets in China and elsewhere should be strengthened and enforced.

Habitat protection Japan Some of the forest on hills and lower mountain slopes where this species breeds have been under pressure for development in Japan, and the location and protection of the most important breeding localities are critical for its conservation. It is clear that many breeding sites remain on Honshu, Shikoku and Kyushu, and indeed in the Izu islands, and a concerted effort should be made to protect the most important of these following the nationwide survey proposed under Research below. **Philippines** The species is known, at least historically, from two additional “key sites” (Mt Bandila-an on Siquijor; Victoria/Anapalan ranges on Palawan; see Appendix). These areas deserve further fieldwork effort, formal designation and protection under the NIPAS process. A regular wintering population might inhabit Hamtang Forest on Panay, an area that would benefit greatly from an allocation of resources to ensure its proper management (see equivalent section under Visayan Wrinkled Hornbill *Aceros waldeni*).

Control of predators Control of the introduced Siberian weasel, which appears to have caused a major decline in the population on Miyake-jima island through predation (J. T. Moyer *in litt.* 1996), is likely to be important for its survival there (and possibly elsewhere). Efforts should be made to prevent the spread of weasels to other islands in the Izu archipelago.

Research Japan The distribution and population size of this species are not fully understood, and surveys are required in many parts of its breeding range. It has distinctive nocturnal vocalisations during the breeding season, which means that it can be detected and accurately censused during night-time surveys. A coordinated national survey at the sites where it has been recorded in the past, together with other areas of apparently suitable forest, would be ideal, recording the condition of the forest habitats at these sites as well as the birds. Further ecological studies should be conducted to determine its home range (probably using radio-tracking) and its requirements in various types of forest, to help evaluate what sizes and types of forest should be protected for it, and how these forests should be managed. **Philippines** There is a general need to search for the species in its historically known wintering grounds in the Philippines (and elsewhere) so as to assess its population and actual conservation status more accurately. Birds could be satellite-tracked from their breeding grounds in Japan to determine their migration routes (and thus also the problems faced en route), exact wintering grounds and pattern of winter dispersion and behaviour.

Conservation education Japan Public awareness should be raised of this charismatic species, which is virtually confined to Japan as a breeding species, and the decline in its numbers that is taking place. Measures for its protection could require modifications to be made to plans for industrial, urban and recreational developments, and public understanding and sympathy may be critical if such plans are to be influenced for its benefit. **Mainland China** Public education campaigns designed to persuade the public in Chinese cities not to purchase wild animals from markets for food would benefit the conservation of this (and many other threatened) species.

REMARKS (1) Hachisuka (1926) drew attention to the fact that although this species very closely resembles Malayan Night-heron *Gorsachius melanolophus*, the two differ in the absence in *goisagi* of an immature plumage, which in *melanolophus* lasts into the second or third year. (2) Meyer de Schauensee (1984) noted in error that this species “winters to Thailand” (see Lekagul and Round 1991). (3) Shawaishan island was included in Jiangsu province by Cheng Tso-hsin (1987), but it is now in Shanghai municipality. It is therefore possible that this species has not been recorded from within the current boundaries of Jiangsu. (4) Pa-alan (1993) tabulated this species as observed on an agricultural ranch at Candugay, Siaton, Negros, in either May–August 1991 or May–July 1992, but the site and season suggest this record may be in error.