

Threatened Birds of Asia:

The BirdLife International Red Data Book

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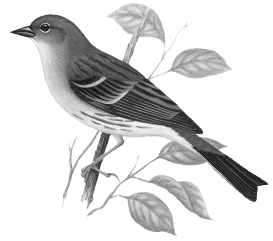
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YELLOW BUNTING

Emberiza sulphurata



Critical —
Endangered —
Vulnerable C1

This bunting qualifies as Vulnerable because it has a small and declining population, probably through a combination of habitat loss, pesticide use and hunting throughout its range.

DISTRIBUTION The Yellow Bunting breeds only in Japan, and is thought to winter mainly in the Philippines, although small numbers have also been found wintering in Japan and Taiwan. It has been recorded on passage (or as a vagrant) in North Korea, South Korea, coastal mainland China, Taiwan and Hong Kong.

■ **JAPAN** The species is an uncommon summer visitor to the lower mountains of central Honshu. Some birds winter in western Honshu and on Kyushu (OSJ 1958), and it has also been recorded as a non-breeding visitor on Hokkaido, Shikoku and the Nansei Shoto islands. Reports that it breeds in coastal grasslands, alpine coniferous forests and alpine grasslands on Hokkaido (Ooga 1985) are regarded as “highly questionable” (Brazil 1991). Records (by island and prefecture) are as follows:

Hokkaido **Soya**, undated (Wildlife Information Center, Hokkaido 1985); **Daisetsu-zan** (Taisetsu-san) mountain, August (unspecified year) (OSJ 1958); **Kushiro**, undated (Wildlife Information Center, Hokkaido 1985); **Hakodate**, two collected, October 1864 (Whitely 1867 in Brazil 1991); **Oshima**, undated (Wildlife Information Center, Hokkaido 1985);

Honshu ■ **Aomori** breeds in forest in the hills of **Aomori**, from May to September (Wada 1922, Aomori Prefecture 1978); **Hakkoda-san** mountain, one, c.1,200 m, July 1921 (Wada 1923); ■ **Iwate Miyako-shi**, “commonly found” breeding, undated, in coastal deciduous broadleaf forest (Kiyosu 1965); **Kitakami Mountains**, recorded in many locations, undated (Iwate Prefecture Government 1978); **Koiwai Farm** (untraced), breeding recorded, undated (Iwate Prefecture Government 1978); ■ **Miyagi Kurikoma-yama** mountain, 1,675 m, undated (Kumagaya 1951), present in the foothills from early May to June (unspecified years) (WBSJ Miyagi Chapter 1992); **Funagata-yama** mountain, present from early May to June (unspecified years) (WBSJ Miyagi Chapter 1992); **Izumiga-dake** mountain, present from early May to June (unspecified years) (WBSJ Miyagi Chapter 1992); near **Hirose-gawa** river, and elsewhere on the plains of Miyagi, occurring on migration (unspecified years) (WBSJ Miyagi Chapter 1992); **Zao-yama** mountains, present from early May to June (unspecified years) (WBSJ Miyagi Chapter 1992); ■ **Akita** unspecified localities, a summer visitor, undated (Nishide 1977); ■ **Yamagata Iide-san** mountain (Mt Iide), Bandai-Asahi National Park, undated (Kato 1970 in Brazil 1991); ■ **Fukushima** common” in the north and “rare” in the centre and south, and “very uncommon” in coastal areas (Wild Bird Society of Fukushima 1979); **Motomiya-machi**, Adachi-gun, two, June 1950 (Yuasa 1953); **Aizu district**, “common”, undated (Wild Bird Society of Fukushima 1979); suburb of **Kooriyama-shi**, breeding, undated (Yuasa 1953); **Kinbiro-san** mountain (untraced), 1947–1949 (Yuasa 1953); **Urabandai** highland (untraced), breeding recorded, undated (Yuasa 1953); **Yokomuki Hot Spring** (untraced), undated (Yuasa 1953); ■ **Ibaraki** unspecified locality, in ‘Hitachi-no-kumi’ (the old name for Ibaraki prefecture), undated (female in AMNH); ■ **Tochigi Nasu-machi**, Nasu-gun, summer visitor, undated (Tochigi Prefecture 1984); **Shioya-machi**, **Shioya-gun**, summer visitor, undated (Tochigi Prefecture 1984); **Imaichi-shi**, summer visitor, undated (Tochigi Prefecture 1984); **Nikko-shi**, April 1891 (specimen in MCML), summer visitor, undated (Tochigi Prefecture

1984); **Tochigi** (Shimotsuke), before 1906 (male in NHMW); **Kanuma-shi**, summer visitor, undated (Tochigi Prefecture 1984); Awano-machi, **Kamitsuga-gun**, breeding, undated (Tochigi Prefecture 1984); **Ichikai-machi**, Haga-gun, summer visitor, undated (Tochigi Prefecture 1984); **Ashikaga-shi**, summer visitor, undated (Tochigi Prefecture 1984); ■ **Gunma** uncommon summer visitor, with most records from the **Akagi-san** mountains, the Kaminohara highlands (untraced), and the Tamahara highlands, undated (Ugi 1973); ■ **Saitama** “Hanno”, **Iruma-gun**, two collected, October 1917, and more birds seen in cages in the area (Momiya and Nomura 1919); Koma, Inuma-gun, reported by local people to occur on migration, but no confirmed records (Momiya and Nomura 1919); ■ **Tokyo** near **Tokyo**, November 1892, November 1909 (two females in MCZ and YIO); **Mito-san** mountain, Tokyo/Yamanishi prefecture, June 1955, June 1956, June 1965 with breeding recorded (five nestlings), June 1971 (WBSJ 1975); **Takao-san** mountain, “winter resident”, 1940–1948 (Kabaya 1948, 1951 in Brazil 1991); Tamagawa-gakuen, **Machida-shi**, May 1965, May 1967 (WBSJ 1975); ■ **Kanagawa Yokohama**, 1897 (five specimens in NMS), before 1898 (eight specimens in BMNH), “irregularly recorded”, 1986–1991 (WBSJ Kanagawa Chapter 1992); **Sagami**, Hondo, July 1906 (clutch of two eggs in NMS); **Hakone**, breeding recorded, undated (WBSJ Kanagawa Chapter 1980), heard calling, summer 1999 (N. Ichida verbally 1999); ■ **Niigata Shinano-gawa** river, “rare” migrant, along the river in April, May and October (unspecified years) (Wild Bird Society of Nagaoka 1988); near **Joetsu-shi** (Joetsu), “common”, summer (unspecified years) (Nakamura 1994); Ikenodaira, Myokokogen-machi, **Nakakubiki-gun**, breeding, 730 m, 1994–1995 (Soga 1995); unspecified locality, October 1923 (one specimen in NRM); ■ **Ishikawa Hegura-jima** island, frequently on migration from mid-April to mid-May (unspecified years), maximum of at least 15, April 1977 (Ishikawa Yacho no Kai in Brazil 1991); upper **Sai-gawa** river, a recently discovered breeding ground (WBSJ Ishikawa Chapter 1962); Katano “Duck Pond”, **Kaga-shi**, 55 seen, October 1998 (*Birder* 99/1); ■ **Fukui** “rare”, recorded in **Oono-shi** and **Katsuyama-shi**, undated (Fukui Prefecture 1982); ■ **Yamanashi** near **Yamanaka-ko** lake, Minamitsuru-gun, male and female, June 1999, several near the observation platform, July 1999 (*Birder* 99/9); ■ **Nagano Madarao highland**, Iiyama-shi, summer visitor, undated (WBSJ Nagano Chapter 1985); **Togakushi highland**, Kamiminochi-gun, summer visitor, undated (WBSJ Nagano Chapter 1985); **Kinasa**, Kamiminochi-gun, summer visitor, undated (WBSJ Nagano Chapter 1985); Oo-ike pond and Nakomata-ike pond, **Nagano-shi**, summer visitor, undated (WBSJ Nagano Chapter 1985); Mitaki, **Koshoku-shi**, summer visitor, undated (WBSJ Nagano Chapter 1985); **Matsumoto**, October 1924 (male and female in MCZ), October 1938 (male and female in FMNH), collected near Matsumoto at Ogura, October 1938 (four specimens in ZMB); **Minami-azumi**, October 1920 (four specimens in AMNH, BMNH and NMS); **Norikura-dake** mountain, July 1891 (female in YIO); Kayano highland, **Kamiina-gun**, summer visitor, undated (WBSJ Nagano Chapter 1985); **Komagane highland**, Komagane-shi, summer visitor, undated (WBSJ Nagano Chapter 1985); ■ **Gifu** unspecified localities, recorded throughout the prefecture, except for the far west and south (Gifu Prefecture 1983); ■ **Shizuoka Fuji-san** (Mt Fuji), including the Subashiri district at the foot of the mountain, “very common”, June–July (unspecified years) (Blakiston and Pryer 1878 in Brazil 1991), and “the commonest bunting”, c.1882 (Jouy 1883 in Brazil 1991), “abundant”, c.1908 (Ingram 1908 in Brazil 1991), June 1882 (male in SNMB), May 1898 (male in AMNH), July 1902, May 1950 (male and female in AMNH), June–July 1903 (three specimens in SMF), May–June 1905, June 1907 (five specimens in NRM), May 1907 (male in BMNH), May–June 1902–1912 (eight clutches of eggs in BMNH), May 1953 (male in FMNH), June 1957 (specimen in YPM); **Sunto-gun**, May 1906 (12 specimens in YIO), August 1906 (13 specimens in YIO); **Gotemba**, Hondo, July 1897 (clutch of one egg in NMS); **Suruga** (perhaps Suruya-no-kumi), Hondo, March 1911 (two females in AMNH and FMNH); Itatsuma (untraced), eastern Shizuoka, breeding, May 1921, but breeding not recorded elsewhere in eastern Shizuoka (Yamashina 1924); ■ **Aichi Sanage-san** mountain, Toyota-shi, three, October

1972 (Friends of the Birds Society of Toyota 1976); Mori-cho, **Toyota-shi**, five, October 1973 (Friends of the Birds Society of Toyota 1976), passage migrant in Toyota-shi, undated (Friends of the Birds Society of Toyota 1976); unspecified localities, March 1891 (three specimens in YIO); ■ **Mie Mie-gun**, February 1935, February 1936 (two females in YIO); ■ **Kyoto** rare spring migrant: **Ashu**, research forest of Kyoto University, summer 1984 (Government of Kyoto 1993); **Kita-ku**, one, April 1989, one, April 1991 (Government of Kyoto 1993); ■ **Osaka Osaka** South Port Bird Park, four, April 1998 (*Birders* 98/7); ■ **Hyogo Muraoka-cho**, Mikata-gun, breeding confirmed, 1978 (WBSJ 1980); unspecified locality (in “Hiogo”), 1898/1899 (specimen in SNMB); ■ **Nara Ikoma-shi**, one, January 1985 (WBSJ 1986); ■ **Tottori** unspecified localities, irregular breeder (OSJ 2000); ■ **Shimane Oki islands**, 1950 and 1963 (Uchida 1982); **Izumo-shi**, 1923 (Uchida 1982); **Nichihara** (Nichihara-chi), Kanoashi-gun, 1973 (Uchida 1982); ■ **Hiroshima Shobara-shi**, six, March 1995 (WBSJ Hiroshima Branch 1998); **Garyu-zan** mountain, Geihoku-cho, Yamagata-gun, male, July 1987 (WBSJ Hiroshima Branch 1998); Tsunogo-cho, **Fukuyama-shi**, one, April 1993 (WBSJ Hiroshima Branch 1998); Kenmin-no-mori, **Saijo-cho**, Hiba-gun, male, May 1988 (WBSJ Hiroshima Branch 1998); **Hiroshima-shi**, regular autumn visitor to city gardens, undated, but possibly these records were of escaped birds as it was the most popular cagebird in the city (Nakao 1921), at Ushitayama, Higashi-ku, one in January 1978 and male and female in May 1987 (WBSJ Hiroshima Branch 1998); Fudekageyama, **Kaino-cho**, Mihara-shi, one, May 1994 (WBSJ Hiroshima Branch 1998); **Hiji-yama**, Minami-ku, Hiroshima-shi, male, April 1985 (WBSJ Hiroshima Branch 1998); **Yawata-gawa river mouth**, Hiroshima-shi, male, May 1986 (WBSJ Hiroshima Branch 1998); **Ota-gawa** river, Higashino, Asaminami-ku, Hiroshima-shi, juvenile, October 1991, female and juvenile, October 1992 (WBSJ Hiroshima Branch 1998); **Ninoshima-cho**, Minami-ku, Hiroshima-shi, two females, March 1993 (WBSJ Hiroshima Branch 1998); ■ **Yamaguchi** widespread but rare in the prefecture (WBSJ Yamaguchi Chapter 1976): **Nagato** (Nagato-sasanami), “rare” winter visitor from late November to late March (unspecified years) (Kanetsune 1923);

Mikura-jima island, Izu islands, May 1934 (female in YIO);

Miyake-jima island, Izu islands, May 1983 (Brazil 1991);

Shikoku ■ **Ehime** near **Shigenobu-gawa river mouth**, five trapped in November since 1982 (Ishihara 1982); Toi-cho (untraced), one photographed, October 1977 (Ishihara 1982); ■ **Kochi** Yamada, **Sukumo-shi**, male and three females, October 1987 (WBSJ 1988);

Kyushu ■ **Fukuoka Kitakyushu-shi**, “rare” passage migrant, undated (Kitakyushu City Association 1994); ■ **Saga Kakara-jima** island, May 1995 (Wild Bird Society of Saga 1997); **Karatsu-shi**, October 1971 (Wild Bird Society of Saga 1997); Chiyoda-cho, **Kanzaki-gun**, October 1977 (Wild Bird Society of Saga 1997); ■ **Nagasaki Tsushima** island, April 1891 (male in BMNH), occurring frequently on migration from mid-April to mid-May (unspecified years) (Brazil 1991), at least six at Kamiagata-gun, May 1998, more than 30 at Shimoagata-gun, April 1998, 63 seen, April 1999, two seen, May 1999 (*Birders* 98/7, 99/7); **Danjo islands**, April 1970 (Brazil 1991); ■ **Oita** Mejima island, **Saiki-shi**, male and two females, April 1998 (*Birders* 98/7); Ogata-machi (untraced), Oono-gun, one singing bird in the breeding season in 1978, but nesting not confirmed (WBSJ 1980); ■ **Miyazaki** Shiminnomori (Citizen’s Forest) (untraced), one, April 1998 (*Birders* 98/7);

Kamino-shima island, Kusagaki islands, October–November 1998 (*Birders* 99/1);

Tanega-shima island, **Sumiyo-son** (here assumed to be Sumiyoshi on Tanega-shima), November 1994 (Amami Ornithologists’ Club 1997);

Yaku-shima island, May 1905 (male in YIO);

Takara-jima island, Tokara islands, April 1984 (Anezaki 1999);

Amami-ooshima island, March–April 1928 (Kobayashi 1930);

Tokashiki-jima island, off Okinawa, November 1985 (McWhirter *et al.* 1996);

Yonaguni-jima island, single birds, April and November 1985 and November 1987 (McWhirter *et al.* 1996);

Ishigaki-jima island, November 1974 (McWhirter *et al.* 1996);

Iriomote-jima island, January and December 1979, September (unspecified year) (McWhirter *et al.* 1996);

Yaeyama islands several records in November–January (unspecified years), including January 1979 (Brazil 1991).

An unknown island and prefecture is: near Kamoze village, Izu-shima (possibly the Izu islands), April 1891 (male in BMNH).

■ **KOREA** ■ **NORTH KOREA** The Yellow Bunting is a rare non-breeding visitor, with records (by province) as follows: ■ **Kaesong Kaesong** (Kaesang), undated (Won and Woo 1958); *province unknown* Ryongchon (untraced), October (unspecified year) (Rim Chu-yon *in litt.* 1998).

■ **SOUTH KOREA** This species is an uncommon passage migrant, with records (by province) as follows: ■ **Kyonggi and Seoul Sorae-myon** (Sorae salt field), female, May 1994 (Lee Woo-shin *in litt.* 1998); unspecified localities, singles collected, October 1927 and October 1928 (Austin 1948); ■ **South Kyongsang Koje-do** island, total of 36 trapped and ringed, April 1967 (Won 1968 in Gore and Won 1971); ■ **Cheju Kapa To** island, up to six, May 1993 (Cresswell *et al.* 1993).

■ **CHINA** ■ **MAINLAND CHINA** This species is mainly a passage migrant, principally in spring, in the coastal provinces of Jiangsu (possibly), Shanghai, Fujian and Guangdong. The lack of records in Hebei and Shandong suggests that it probably migrates directly from Japan to the south-east Chinese coast. Some birds may have wintered in southern China (Fujian province) in the past (see La Touche 1925–1934), but there is no recent evidence. Records (by province and region) are as follows:

■ **Shanghai Chongming Dao** island, April, June and November 1910 (Kiyosu 1965); **Shawaishan island** (see Remarks 1), May 1903, May 1907, April–May 1908, November 1910, April–May 1911 (Sowerby 1943, 16 specimens in AMNH, BMNH, MCZ and SNHMCN); **Hongkou park**, female collected, November 1990 (Wei Zhengdao *per* Gao Yuren *in litt.* 1997);

■ **Fujian** (note that the Mazu Dao and Jinmen Dao islands are under the administration of Taipei) **Tungyin Tao** (Tung-yin), Mazu Dao (Matsu) islands, three, April 1997 (CWBF database); **Peikantang Tao** (Pei-kan), Mazu Dao (Matsu) islands, up to 19, April 1997 (CWBF database); Nan-kan, **Mazu Dao** (Matsu) islands, seven, November 1996, up to 42, April 1997, 19, April 1998 (CWBF database); near **Fuzhou** (Foochow), April 1885 (Styan 1887, two specimens in AMNH and BMNH), November 1896, February 1911 and October 1913 (two) (La Touche 1925–1934, four males in MCZ), female collected, February (unspecified year) (Martens 1910); **Hsichüan Tao** (Hsi-chü), Mazu (Matsu) islands, three, April 1997 (CWBF database); **Tungchüan Tao** (Tung-chü), Mazu (Matsu) islands, up to 11, April 1997, one, March 1998 (CWBF database); **Jinmen Dao** (Chin-men Tao, Kimen or Quemoy) island, two, 1994, one, 1996, one, April 1997, four, April 1998 (CWBF database); **Xiamen** (Amoy), April 1858, April 1861, April–May 1866, April 1877 (Swinhoe 1861, 1863a, 28 specimens in AMNH, BMNH, MCML, NHMW, RMNH, SMF and USNM);

■ **Guangdong Shantou** (Swatow), “rare and observed only in the spring”, undated (La Touche 1892); unspecified localities, April–May (unspecified years) (Gee *et al.* 1926–1927).

Unconfirmed records come from two provinces, Shaanxi and Jiangsu. In Shaanxi a specimen was apparently collected at Siau-wang-kiên, Qinling mountains (Ts'in-ling mountains), in April 1904, the species being “observed only in the higher parts of the Ts'in-ling mountains, early in May, in company with Yellow-throated Bunting *E. elegans*” (Blackwelder 1907). This represents the only report from the interior of China, and as this species was not noted by Cheng Tso-hsin *et al.* (1973) during his extensive surveys in the Qinling mountains, this record is here treated as unconfirmed. In Jiangsu the species was reported from unspecified localities in April and June (unspecified years) (Gee *et al.* 1926–

1927), but this could be based solely upon records from Shaweishan island, now in Shanghai (see Remarks 1).

■ **HONG KONG** The species occurs on spring migration, mainly from the Inner Deep Bay area and near the Shenzhen river in northern New Territories, with records as follows: **Lok Ma Chau**, four, April 1991 (HKBWS database); **Long Valley**, three, April 1995, 17, April 1996 (HKBWS database); **Shuen Wan**, one, April 1988, one, April 1993, one, April 1995 (HKBWS database); **Deep Bay** area, including Mai Po marshes and Tsim Bei Tsui, one, April 1974, one in Mai Po Marshes Nature Reserve, April 1984, two, April 1985, 1–2, March–April 1988 (HKBWS database), one, April 1989 (HKBWS database), 1–2, April 1991, 15, April 1993 (HKBWS database), 1–3, April 1995 (HKBWS database), April 1996 (L. Macauley *in litt.* 1999); **Kai Tak Airport**, Kowloon, three, April 1993 (HKBWS database); **Wah Fu**, Hong Kong island, two, April 1985 (HKBWS database); **Cheung Chau** island, one, April 1989 (HKBWS database).

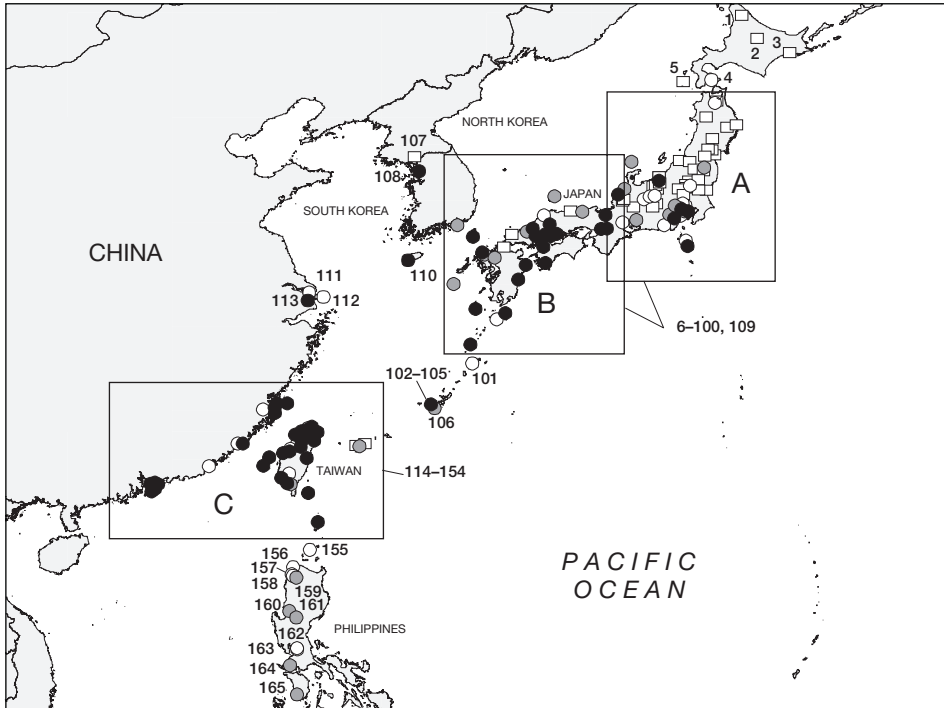
■ **TAIWAN** It is a passage migrant to the north-east and western coast, and on islands near mainland China (Chiang Ming-liang *in litt.* 1998; for records on Jinmen Dao and Mazu Dao islands refer to Fujian province above). There were winter records on Taiwan in the past, but there is no definite recent evidence of wintering, although several records in December and March in the 1990s may have involved wintering birds. Records are as follows: **Chinshan**, Taipei, one, 1993, one, 1994, two, 1995, seven (including two in November), 1996, two, April 1997, three, April 1998 (CWBF database); **Yehliu**, Taipei, two, December 1996, one, April 1997 (CWBF database); **Tanshui**, Taipei, March 1933 (three specimens in YIO); **Kuantu**, Taipei, one, 1996, one, 1998 (CWBF database); **Chuntou**, Taoyüan county, one, April 1997 (CWBF database); **Kungliao**, Taipei, two, 1996, two, 1997, one, 1998 (CWBF database); **Tienliaoyang**, Kungliao, Taipei, one, November 1996, one, March 1997, two, April 1997, one, May 1997 (CWBF database), three, 1997, two, 1998 (CWBF database); **Tachuang**, Hsinchu county, one, 1998 (CWBF database); **Kangnan**, Hsinchu county, two, 1992, one, 1993, up to nine, November 1995, four (including one in November), 1996, one, March 1997, up to seven, April 1997, two, April 1998 (CWBF database); **Wentitsun** (Wen-ti), Ilan, one, December 1996 (CWBF database); Shatzu-keng, **Hsinchu county**, one, April 1997 (CWBF database); coastal **Sanchi**, Taipei county, male, November 1995 (CWBF database); **Tahsüeh Shan** mountain (Mt Tahsü), Taichung, three, December 1996 (CWBF database); **Taichung**, November 1932 (five specimens in YIO); **Changhua city** (Changhwa city), Changhwa county, two, November 1995 (CWBF database); **Hanpao**, Changhwa, one, April 1998 (CWBF database); **Chipei island**, Penghu islands, 12, November 1996 (CWBF database); **Fenglin**, Hualien, male, November 1995 (CWBF database); **Hua Yu** island, Penghu county, April 1996 and October 1997 (Huang 1998); Fungshan, **Kaohsiung county**, January 1866 (four specimens in AMNH and BMNH); **Yungan** saltwork, Kauhsiung, two, April 1998 (CWBF database); **Hsinyuen**, Pingtung county, two, April 1998 (CWBF database); **Pingtung county**, March 1958 (specimen in USNM); **Lanyu island**, 46 birds, 1996, one, March 1997, one, April 1998 (CWBF database); Baksa (untraced), March 1893 (male in BMNH).

■ **PHILIPPINES** The species has been recorded in winter in the northern Philippines on Bataan, Calayan, Luzon and Mindoro, with records as follows:

Bataan coastal hills west of **Basco**, November 1991 (R. J. Timmins *in litt.* 1997);

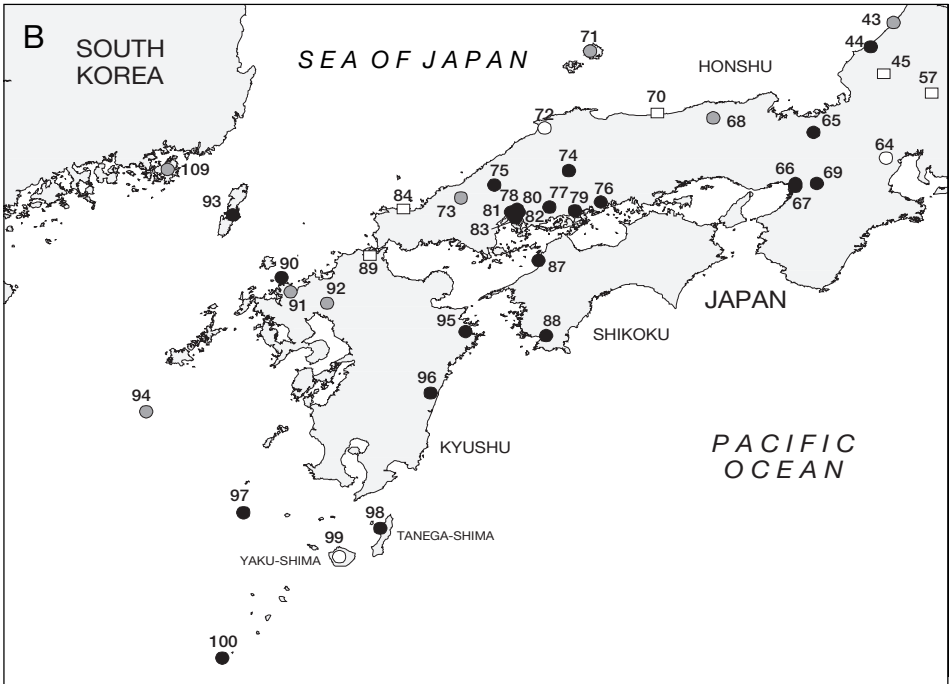
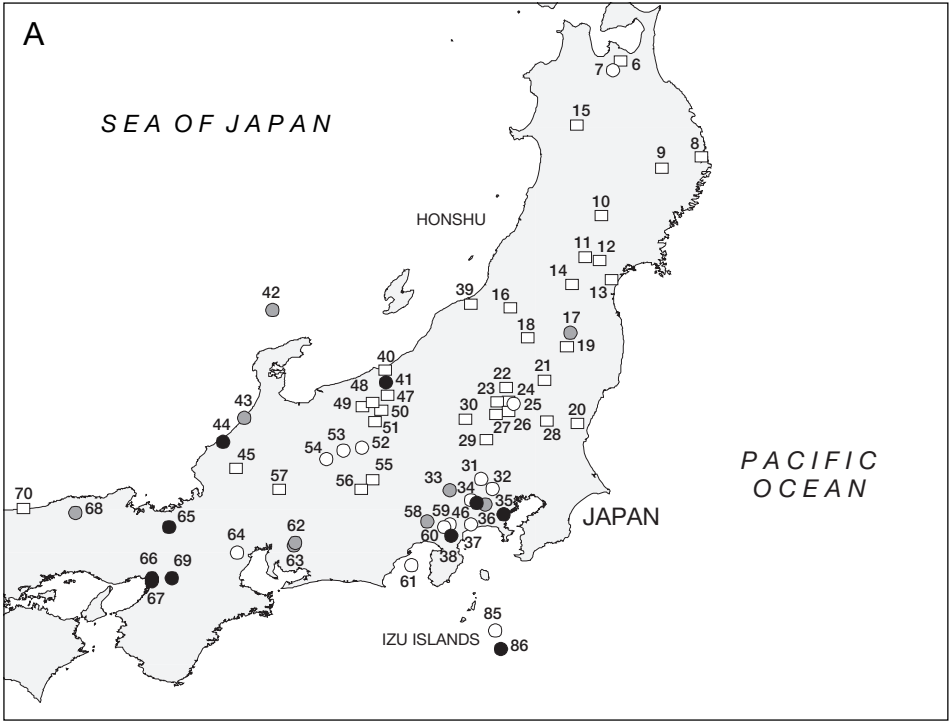
Calayan without specific locality, November 1903 (McGregor 1904b, 1909–1910);

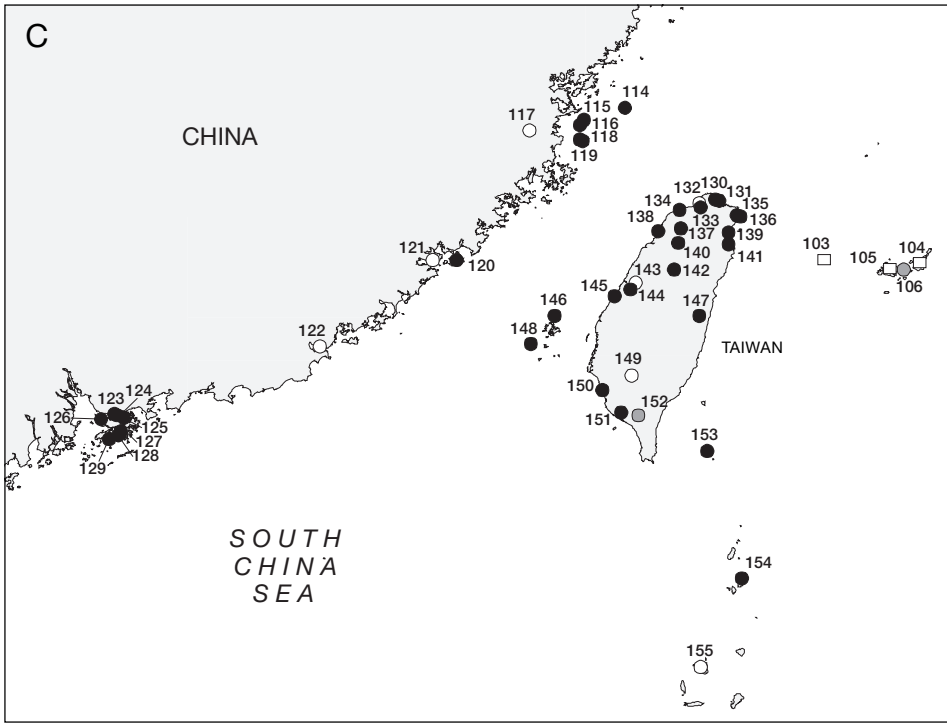
Luzon **Bangui**, Ilocos Norte, November 1923 (McGregor 1924); **Piddig**, Ilocos Norte, December 1923 (McGregor 1924); **Solsona**, Ilocos Norte, December 1923 and January 1926 (McGregor 1924, Baud 1978); Nueva Era (not mapped), Ilocos Norte, April 1959 (two specimens in FMNH); **Mt Sicapo-o** on Mt Simminublan, Ilocos Norte, April 1959 (female in YPM); 30 km north of **Baguio**, Benguet, December 1978 (Dickinson *et al.* 1991, E. C. Dickinson verbally 1997), with a Benguet specimen from 1,500 m (in AMNH) taken January



The distribution of Yellow Bunting *Emberiza sulphurata* (Maps A–C overlaid): (1) Soya; (2) Daisetsuzan; (3) Kushiro; (4) Hakodate; (5) Oshima; (6) Aomori; (7) Hakkoda-san; (8) Miyako-shi; (9) Kitakami mountains; (10) Kurikoma-yama; (11) Funagata-yama; (12) Izumiga-dake; (13) Hirose-gawa; (14) Zao-yama; (15) Akita; (16) Iide-san; (17) Motomiya-machi; (18) Aizu district; (19) Kooriyama-shi; (20) Ibaraki; (21) Nasu-machi; (22) Shioya-gun; (23) Imaichi-shi; (24) Nikko-shi; (25) Tochigi; (26) Kanuma-shi; (27) Kamitsuga-gun; (28) Ichikai-machi; (29) Ashikaga-shi; (30) Akagi-san; (31) Iruma-gun; (32) Tokyo; (33) Mito-san; (34) Takao-san; (35) Machida-shi; (36) Yokohama; (37) Sagami; (38) Hakone; (39) Shinano-gawa; (40) Joetsu-shi; (41) Nakakubiki-gun; (42) Hegura-jima; (43) Sai-gawa; (44) Kaga-shi; (45) Oono-shi; (46) Yamanaka-ko; (47) Madarao highland; (48) Togakushi highland; (49) Kinasa; (50) Nagano-shi; (51) Koshoku-shi; (52) Matsumoto; (53) Minami-azumi; (54) Norikura-dake; (55) Kamiina-gun; (56) Komagane highland; (57) Gifu; (58) Fuji-san; (59) Suntou-gun; (60) Gotemba; (61) Suruga; (62) Sanage-san; (63) Toyota-shi; (64) Mie-gun; (65) Ashu; (66) Kita-ku; (67) Osaka; (68) Muraoka-cho; (69) Ikoma-shi; (70) Tottori; (71) Oki islands; (72) Izumo-shi; (73) Nichihara; (74) Shobara-shi; (75) Garyu-zan; (76) Fukuyama-shi; (77) Saijo-cho; (78) Hiroshima-shi; (79) Kaino-cho; (80) Hiji-yama; (81) Yawata-gawa river mouth; (82) Ota-gawa; (83) Ninoshima-cho; (84) Nagato; (85) Miyake-jima; (86) Mikura-jima; (87) Shigenobu-gawa river mouth; (88) Sukumo-shi; (89) Kitakyushu-shi; (90) Kakara-jima; (91) Karatsu-shi; (92) Kanzaki-gun; (93) Tsushima; (94) Danjo islands; (95) Saiki-shi; (96) Shiminnomori; (97) Kamino-shima; (98) Sumiyo-son; (99) Yaku-shima; (100) Takara-jima; (101) Amami-ooshima; (102) Tokashiki-jima; (103) Yonaguni-jima; (104) Ishigaki-jima; (105) Iriomote-jima; (106) Yaeyama islands; (107) Kaesong; (108) Sorae-myon; (109) Koje-do; (110) Kapa To; (111) Chongming Dao; (112) Shawaishan island; (113) Hongkou; (114) Tungyin Tao; (115) Peikantang Tao; (116) Mazu Dao; (117) Fuzhou; (118) Hsichüan Tao; (119) Tungchüan Tao; (120) Jinmen Dao; (121) Xiamen city; (122) Shantou city; (123) Lok Ma Chau; (124) Long Valley; (125) Shuen Wan; (126) Deep Bay; (127) Kai Tak Airport; (128) Wah Fu; (129) Cheung Chau; (130) Chinshan; (131) Yehliu; (132) Tanshui; (133) Kuantu; (134) Chuntou; (135) Kungliao; (136) Tienliaoyang; (137) Tachuang; (138) Kangnan; (139) Wentitsun; (140) Hsinchu county; (141) Sanchi; (142) Tahsüeh Shan; (143) Taichung; (144) Changhua city; (145) Hanpao; (146) Chipei island; (147) Fenglin; (148) Hua Yu; (149) Kaohsiung county; (150) Yungan; (151) Hsinyuen; (152) Pingtung county; (153) Lanyu island; (154) Basco; (155) Calayan; (156) Bangui; (157) Piddig; (158) Solsona; (159) Mt Sicapo-o; (160) Baguio; (161) Dalton Pass; (162) Caloocan; (163) Manila; (164) Calatagan; (165) Bungsanga.

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





The distribution of Yellow Bunting *Emberiza sulphurata* (Maps A and B): (6) Aomori; (7) Hakkoda-san; (8) Miyako-shi; (9) Kitakami mountains; (10) Kurikoma-yama; (11) Funagata-yama; (12) Izumiga-dake; (13) Hirose-gawa; (14) Zao-yama; (15) Akita; (16) Iide-san; (17) Motomiya-machi; (18) Aizu district; (19) Kooriyama-shi; (20) Ibaraki; (21) Nasu-machi; (22) Shioya-gun; (23) Imaichi-shi; (24) Nikko-shi; (25) Tochigi; (26) Kanuma-shi; (27) Kamitsuga-gun; (28) Ichikai-machi; (29) Ashikaga-shi; (30) Akagi-san; (31) Iruma-gun; (32) Tokyo; (33) Mito-san; (34) Takao-san; (35) Machida-shi; (36) Yokohama; (37) Sagami; (38) Hakone; (39) Shinano-gawa; (40) Joetsu-shi; (41) Nakakubiki-gun; (42) Hegura-jima; (43) Sai-gawa; (44) Kaga-shi; (45) Oono-shi; (46) Yamanaka-ko; (47) Madarao highland; (48) Togakushi highland; (49) Kinasa; (50) Nagano-shi; (51) Koshoku-shi; (52) Matsumoto; (53) Minami-azumi; (54) Norikura-dake; (55) Kamiina-gun; (56) Komagane highland; (57) Gifu; (58) Fuji-san; (59) Sunto-gun; (60) Gotemba; (61) Suruga; (62) Sanage-san; (63) Toyota-shi; (64) Mie-gun; (65) Ashu; (66) Kita-ku; (67) Osaka; (68) Muraoka-cho; (69) Ikoma-shi; (70) Tottori; (71) Oki islands; (72) Izumo-shi; (73) Nichihara; (74) Shobara-shi; (75) Garyu-zan; (76) Fukuyama-shi; (77) Saijo-cho; (78) Hiroshima-shi; (79) Kaino-cho; (80) Hiji-yama; (81) Yawata-gawa river mouth; (82) Ota-gawa; (83) Ninoshima-cho; (84) Nagato; (85) Miyake-jima; (86) Mikura-jima; (87) Shigenobu-gawa river mouth; (88) Sukumo-shi; (89) Kitakyushu-shi; (90) Kakara-jima; (91) Karatsu-shi; (92) Kanzaki-gun; (93) Tsushima; (94) Danjo islands; (95) Saiki-shi; (96) Shiminnomori; (97) Kamino-shima; (98) Sumiyo-son; (99) Yaku-shima; (100) Takara-jima; (109) Koje-do.

(Map C): (114) Tungyin Tao; (115) Peikantang Tao; (116) Mazu Dao; (117) Fuzhou; (118) Hsichüan Tao; (119) Tungchüan Tao; (120) Jinmen Dao; (121) Xiamen city; (122) Shantou city; (123) Lok Ma Chau; (124) Long Valley; (125) Shuen Wan; (126) Deep Bay; (127) Kai Tak Airport; (128) Wah Fu; (129) Cheung Chau; (130) Chinshan; (131) Yehliu; (132) Tanshui; (133) Kuantu; (134) Chuntou; (135) Kungliao; (136) Tienliaoyang; (137) Tachuang; (138) Kangnan; (139) Wentitsun; (140) Hsinchu county; (141) Sanchi; (142) Tahsüeh Shan; (143) Taichung; (144) Changhua city; (145) Hanpao; (146) Chipei island; (147) Fenglin; (148) Hua Yu; (149) Kaohsiung county; (150) Yungan; (151) Hsinyuen; (152) Pingtung county; (153) Lanyu island; (154) Basco; (155) Calayan.

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

1894 (also Whitehead 1899b); without specific locality, La Union province, January and March 1907 (Dickinson *et al.* 1991); Anao (not mapped), Tarlac province, March 1904 (McGregor 1909–1910, three specimens in FMNH); **Dalton Pass**, Nueva Vizcaya, March 1965 (female in PNM); **Caloocan**, December 1906 (Baud 1978); vicinity of **Manila** (McGregor 1909–1910); **Calatagan**, Batangas province, 1967, December 1968 and April 1969 (McClure and Leelavit 1972; three specimens in PNM); without specific locality, Bataan province, 1970s or 1980s (S. Gast and R. S. Kennedy in Dickinson *et al.* 1991);

Mindoro Bugsanga estuary, February–March 1972, up to 20, including two collected (Temme 1974).

POPULATION The Yellow Bunting is generally uncommon in its restricted breeding range in Japan (Austin and Kuroda 1953, see Distribution), and it appears to have declined significantly during the twentieth century. Brazil (1991) noted that Blakiston and Pryer (1878) found it “very common” on Mt Fuji in June–July (probably in the 1870s) and Jouy (1883) regarded it as the commonest bunting in the same area, probably also in the 1870s. Ingram (1908) still found it “abundant” at the foot of Mt Fuji in 1908. By the 1930s it appeared to have declined substantially: Kiyosu (1965) studied it in the foothills of Mt Fuji (in 1932–1934) and in the northern Japan Alps (in 1932–1938) and found it much less numerous than Black-faced Bunting *E. spodocephala*. Kuroda (1933b), Yamashina (1941) and Yuasa (1953) all noted that it was far less common than Black-faced Bunting and Meadow Bunting *E. cioides*. There are not yet sufficient data to judge whether the species has continued to decline in numbers (but see Measures Proposed), although preliminary results from a nationwide breeding bird survey conducted in the late 1990s indicate that its distribution on the breeding grounds has not changed significantly since a similar survey in the 1970s (WBSJ staff verbally). However, given the various threats that it faces on migration and in winter, and the general decline in the numbers of small passerines that has been noted in Japan, Korea and mainland China (see Threats), it is here assumed that it may well still be in decline.

It is scarce on passage in South Korea, mainland China, Hong Kong and Taiwan, and it is difficult to detect any change in its abundance on the basis of records there. In the Philippines it was judged “somewhat abundant but inconspicuous” at the start of the twentieth century (McGregor 1909–1910), and was found to be abundant in Ilocos Norte province in January–March 1907 (Dickinson *et al.* 1991), abundant at Piddig and Solsona in that province in December 1923 (McGregor 1924), but scarce in La Union province in 1907 (Dickinson *et al.* 1991). On Calayan in November 1903, McGregor (1904b) collected five, but with “very few others seen”. All other records in the Philippines appear to refer to small numbers: Dickinson *et al.* (1991) called it “uncommon”, but the overlooked record of Temme (1974) from Mindoro suggests that there may be local concentrations in many little-watched places. It is quite probably overlooked owing to its inconspicuous habits—McGregor (1904b) described it as “difficult to get [=collect] ... more put up by accident than otherwise”—but the paucity of recent records nevertheless suggests that it has become a very uncommon winter visitor, with records spanning November–April.

ECOLOGY Habitat In summer, it is found on the breeding grounds in Japan at c.600–1,500 m, in deciduous and mixed forests, on wooded slopes and in high valleys, around woodland edges and in park-like areas with shrubs and thickets (Austin and Kuroda 1953, Kiyosu 1965, Brazil 1991). On migration in Japan it can be found in shrubby clearings in open woodland, low secondary growth and open cultivated country with bushes and thickets, and even open grasslands (Brazil 1991). It is frequently seen in the same areas as Black-faced Bunting, which it closely resembles in its habits and actions (Austin and Kuroda 1953). On migration in Hong Kong, it appears to favour lowland grassy areas with some shrub cover, including areas of mixed cropland, and most records are from open areas including grassy

fishpond bunds, grassy banks to paths and small roads, low open-canopy shrubland dominated by *Lantana camara* and public gardens (C. Ma *in litt.* 1997). On Taiwan it is usually found in the lowlands near coastal wetlands and in adjacent scrub (Chiang Ming-liang *in litt.* 1998), and in South Korea it has been seen in scrub and agricultural land near the coast (Lee Woo-shin *in litt.* 1998).

In its wintering range in the Philippines the Yellow Bunting occurs in scrub, pine forest and cultivated areas, singly or in groups (Dickinson *et al.* 1991), at altitudes from the coast up to 1,500 m (Whitehead 1899b, McGregor 1920). Delacour and Mayr (1946) reported it to frequent fields and grasslands, Temme (1974) recorded it on Mindoro along a partly burnt large sandy riverbank, overgrown with “talahib” *Saccharum spontaneum*, and McGregor (1904b) found it to frequent low brush on Calayan. In Ilocos Norte, Luzon, December 1923, birds were present along roads and in uncultivated fields near towns (McGregor 1924). The Bataan record was of birds feeding on grazed hills along the coast (R. J. Timmins *in litt.* 1997).

Food In Japan it feeds on the ground on insects (such as beetles and caterpillars) and plant materials such as legume seeds (Kiyosu 1965). On Mindoro in the Philippines, birds fed on yellowish grass seeds that had dropped after the burning of tall grass (Temme 1974).

Breeding It nests between May and July, in bushes or on the ground, and it lays 3–5 eggs (Yamashina 1941, Uchida 1949). In the highlands in Niigata prefecture, the males were found to arrive at the breeding grounds before the females, when snow still covered much of the ground, and they congregated on the limited areas of snow-free vegetation; these bushes formed the nuclei of dispersal of breeding territories of male birds, where they began their courtship behaviour (Soga 1995).

Migration The species arrives on the breeding grounds in Japan in late April and departs in late October (Kiyosu 1965), or from April to September in Fukushima prefecture (Yuasa 1953). On the breeding grounds in Niigata prefecture, males were found to arrive earlier than females (Soga 1995). Winter records are now rare in Japan (Brazil 1991), and there are no recent confirmed winter records from Taiwan (Chiang Ming-liang *in litt.* 1998; but see Distribution) or south-east China, where some were found in winter in the past (see Distribution). It only occurs in mainland China and Hong Kong on spring migration, indicating that at least some birds probably take a different migration route in the autumn to the wintering grounds, presumably via Taiwan. Records in the Philippines are from November to April, suggesting that it overwinters in the archipelago (Byers *et al.* 1995). In 1903, the species was found in November on Calayan, north of Luzon, observers having been present on the island evidently from at least mid-October (McGregor 1904b); doubtless the island is a stepping-stone for birds moving down to Luzon and beyond.

THREATS **Habitat loss** *Japan* It is unclear whether there have been any changes to the habitats of this species within its breeding range which could account for its decline in numbers. The areas where it nests are not seriously affected by development (SC). *Mainland China* Economic developments in the coastal provinces have led to the conversion of many agricultural areas into industrial sites and urban areas, and could have reduced suitable habitats (SC). *Hong Kong* Long Valley and the northern New Territories, some of the best sites for this species in Hong Kong, are under threat from urban development and pollution, and traditional farmland is being converted into highways, railways, container storage and new towns (SC). *Taiwan* Development of coastal wetlands in Taiwan may have reduced the habitats of this species (Chiang Ming-liang *in litt.* 1998). *Philippines* Its apparent preference for uncultivated areas, with their abundance of seeds, may have rendered it susceptible to agricultural intensification.

Pollution/pesticides Although not well documented, the use of pesticides and agrochemicals seems to have caused serious ecological problems in several Asian countries, and is probably

the main cause of the rapid decline that has been noted in the numbers of many small passerines in rural areas of southern mainland China (Gao Yuren and Zheng Guangmei verbally 1996). Similar declines have been noted in Japan and Korea (N. Ichida and Kim Jin-han verbally 1998). The Yellow Bunting, which occurs in agricultural areas on migration and possibly also in winter, is likely to have been among the species that have declined through the use of toxic chemicals in the environment.

Hunting and trade Japan In Japan, trapping for trade may have had a substantial effect on the species in the past (and may have accounted for the initial decline in numbers), since it was formerly a common cagebird (Brazil 1991). It was particularly commonly kept in western Japan, and during the Tokugawa Era (seventeenth to mid-nineteenth century) it was so popular that good singers were very expensive (Yamashina 1933). However, this is no longer a threat in Japan as this species is not kept as a cagebird. **Mainland China** This species is not deliberately targeted by hunters, but some may be captured (although the trapping is mainly done in autumn, when there are no documented records in mainland China) during the mass trapping of Yellow-breasted Bunting *Emberiza aureola* for food in Guangdong province; it is estimated that several hundred thousand buntings (mostly Yellow-breasted Bunting) are captured and consumed there annually (Gao Yuren 1996).

MEASURES TAKEN Legislation Japan The Yellow Bunting 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 assessment for development projects (Environment Agency of Japan *in litt.* 1999). **North Korea** It is designated as a rare bird and protected in North Korea (Rim Chu-yon *in litt.* 1998). **Hong Kong** All wild birds are protected in Hong Kong under the Wild Animals Protection Ordinance (Cap. 170) (SC).

Protected areas Japan The Yellow Bunting 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): on Hokkaido, Mount Taisetsu-san National Protection Area (355 km²), Kushiro National Protection Area (115 km²), Akan Protection Area (54 km²) and Akan-ko Protection Area (88 km²); in Aomori, Towada National Protection Area (388 km², including a "special protection area" of 194 km²); in Miyagi, Kurikoma Protection Area (186 km², including a "special protected area" of 13 km²) and Zao-Renpo Protection Area (277 km², including a "special protection area" of 267 km²); in Iwate, Miyako-shi Miyakowan Protection Area (28 km²), Hayachine-san (82 km², including a "special protection area" of 24 km²) and Goshō Dam Protection Area (6 km²); in Fukushima, Inawashiro Protection Area (109 km²) and Urabandai Bandai Protection Area (180 km², including a "special protection area" of 33 km²); in Tochigi, Nikko Protection Area (269 km², including a "special protection area" of 34 km²), Sanuki Kannon Protection Area (0.2 km²) and Houkigawa Protection Area (0.4 km²); in Gunma, Kusaki Protection Area (3 km²); in Kanagawa, Hakone Protection Area (100 km², including a "special protection area" of 12 km²); in Niigata, Yukuizan Protection Area (0.8 km²), Oo-ike Protection Area (3.5 km²) and Myoko-san Protection Area (139 km², including a "special protection area" of 25 km²); in Ishikawa, Hakusan National Protection Area (381 km², in both Ishikawa and Gifu prefectures) and Katano Duck Pond Protection Area and Special Protection Area (0.1 km²); in Fukui, Kuzuryu-gawa Dam Protection Area (11 km²); in Yamanashi, Yamanaka-ko Protection Area (14 km², including a "special protection area" of 6 km²); in Nagano, Asama National Protection Area (322 km², in both Nagano and Gunma prefectures, including a "special protection area" of 9 km²), Japan Northern Alps National Protection Area (1,103 km², in Toyama, Nagano and Gifu prefectures, including a "special protection area" of 253 km²), Nojiri-ko Protection Area (6 km²), Kizaki-ko Protection Area (1 km²), Mibu-gawa Joryu Protection Area (153 km², including a "special protection area" of 49 km²) and Norikura Protection Area (56 km²); in Aichi, Okazaki Protection Area (65 km²); in Tottori, Sendai-gawa Ryuiki Protection Area

(6 km²); in Hiroshima, Matsunaga-wan Protection Area (16 km²), Numata-gawa Protection Area (11 km²) and Haji Protection Area (3 km²); in Kochi, Sukumo-wan Protection Area (16 km²); in Saga, Kakara-jima Protection Area (3 km²); in Nagasaki, Danjo-gunto Protection Area and Special Protection Area (4 km²); in Oita, Sobo-sankei Protection Area (52 km²) and Himeshima-son Protection Area (8 km²); in Okinawa, Iriomote National Protection Area (38 km², including a “special protection area” of 23 km²) and Yonaguni National Protection Area (3 km²). (*Hong Kong*) The Mai Po marshes have been protected since 1973, and in 1995 the Inner Deep Bay area (including Mai Po marshes) was designated as a Ramsar Site (SC).

MEASURES PROPOSED *Legislation* This species is not legally protected in several parts of its range. Such protection is required, particularly in the Philippines.

Habitat protection The underlying causes of the decline of this species are unclear, but habitat protection and management is likely to prove to be important for its conservation in some parts of its range; improved protection of coastal wetlands in Taiwan may particularly benefit the species (Chiang Ming-liang *in litt.* 1997).

Research *Japan* Research is required into the current status of its breeding population, possibly through a coordinated national census, and comparison with historical data would help to determine the extent of its decline and whether its numbers are still falling. This will be partially addressed within the next two years through a comparison of the results of a nationwide breeding bird survey conducted in the late 1990s with those of a similar survey in the 1970s, although the population data available are still incomplete (WBSJ staff verbally). Ecological studies could be conducted to investigate the details of its breeding habitat requirements, and hence whether it may be being affected by subtle environmental changes within its breeding range. A long-term ringing study on Japan would enable researchers in the Philippines and elsewhere to plot patterns of distribution and habitat use through the non-breeding season, and indeed a reciprocal ringing study could be started in the Philippines. *Mainland China* Many species of small passerines are known to be declining in China and elsewhere in Asia, and studies (possibly including internationally coordinated studies of selected migratory species) are required to investigate the underlying causes. *Philippines* Research into the species's current range and ecology on Luzon would be valuable. Field surveys in open habitats at “key” or protected sites might provide further records and thus indicate which areas, if any, would benefit from management appropriate to the species.

REMARKS (1) Shaweishan 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.