

Threatened Birds of Asia:

The BirdLife International Red Data Book

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SPOTTED GREENSHANK

Tringa guttifer

Critical ☐ —

Endangered ☒ C1

Vulnerable ☐ A2c,d; D1



This forest-nesting wader has a very small population which is declining as a result of the development of coastal wetlands throughout its range, principally for industry, infrastructure projects and aquaculture. It therefore qualifies as Endangered.

DISTRIBUTION The Spotted or Nordmann's Greenshank breeds on the coast of eastern Russia, and has occurred as a non-breeding visitor to many other Asian countries. Its non-breeding range is not fully understood (see Remarks 1), but substantial numbers have been recorded in South Korea, mainland China, Taiwan and Hong Kong on passage, and in Bangladesh, Thailand, Cambodia, Vietnam and Peninsular Malaysia in winter. It has also been recorded on passage or in winter in Japan, North Korea, India, Sri Lanka, Myanmar (which may prove to be an important part of its wintering range), Singapore, the Philippines and Indonesia, with unconfirmed records from Nepal and the Pacific island of Guam (Williams 1987).

■ **RUSSIA** The species is only known to breed in eastern Russia, in small, isolated pockets of suitable habitat along the south-western and northern coasts of the Sea of Okhotsk (in Magadan, Khabarovsk and presumably on western Kamchatka) and on Sakhalin island, and it is also recorded from Koryakia and Primorye. Its breeding range has contracted along the north-east coast of Sakhalin because of industrial development (Nechaev 1991). It has also been recorded on migration on Kamchatka and in Primorye, but not on the Kuril islands despite surveys to try to locate it there (AVA). Records (by province) are as follows:

■ **Koryakia Korfa bay** (Baron Korpa bay), June 1908 (female in FMNH);

■ **Kamchatka** lower **Moroshechnaya river**, west coast of Kamchatka, male collected, May 1976, displaying males and pairs seen, May 1977 and May 1980 (Gerasimov 1985), three pairs seen and one male collected at the Stolbovaya river mouth, 12 km north of the Moroshechnaya river mouth, May 1971 (Gerasimov 1985); **Beringa island** (Bering island), Commander islands, May 1883 (male in USNM; also Dement'ev and Gladkov 1951–1954); **Avacha river mouth**, undated (Dement'ev and Gladkov 1951–1954);

■ **Magadan Gizhiga river mouth**, three collected, August 1901 (Allen 1905); **Malkachan river mouth**, family parties of chicks and adults seen in 1997 and 1998, flock of c.40 adults, July 1998 (Kondrat'ev and Andreev 1998, W. Forstmeier verbally 1998); **Taui river mouth**, 110 km west of Magadan, three, June 1987 (Kondrat'ev 1988); **Ola Lagoon**, 40 km north-east of Magadan, several birds on the shoreline, undated (Dorogoy 1997);

■ **Khabarovsk** (along the coast of the Sea of Okhotsk) **Okhota river mouth**, collected from a small flock, July (unspecified year) (Dement'ev and Gladkov 1951–1954); coast near the **Uda river mouth**, one pair with downy chicks, July 1991 (Pronkevich and Voronov 1992); **Medvezhiy island**, Shantar archipelago, Sea of Okhotsk, Tuguro-Chumikanskiy district, several birds, August 1978 (Roslyakov 1987c); **Torom river mouth**, Toromskaya bay coast, two adults in wet grass-sedge meadows, July 1991 (B. A. Voronov *in litt.* 1997); **Mukhtel' lagoon**, Nikolai bay, total of c.150 birds (in flocks of 5–10 and up to 30–45 birds), August 1996 (Babenko and Masterov 1997); southern **Konstantin bay**, Tugursky peninsula, Tuguro-Chumikanskiy district, common breeding species, with 30 breeding pairs counted in coastal meadows, July 1991 (Pronkevich and Voronov 1992, B. A. Voronov *in litt.* 1997); **Osman**

bay, left bank of Tugursky bay, Tuguro-Chumikansky district, breeding in small numbers in coastal meadows, three pairs counted, July 1991 (B. A. Voronov *in litt.* 1997); southern **Tugurski bay** (Tugur bay), five breeding pairs, 1990 (Pronkevich and Voronov 1992); near the **Kutyn river mouth**, right bank of Tugursky bay, Tuguro-Chumikanskiy district, breeding in small numbers, pair with two downy chicks in a hummock moss bog, July 1991 (B. A. Voronov *in litt.* 1997); between the **Ul'ban river** and Syran river estuaries, Tuguro-Chumikanskiy district, scarce breeder, with 19 birds counted in coastal meadows and on the mudflats, August 1989 (Voronov and Pronkevich 1991b); **Schast'ya bay**, Nikolaevskiy district, scarce breeding species, with seven collected along the seashore and on tidal mudflats, May–June (unspecified years), females with developed follicles (Yakhontov 1962, 1976); **Langr island**, Amur river mouth, one collected, August 1909 (Buturlin 1910b); **Amur estuary** (Amur bay), May and August 1894 and August (unspecified year) (three specimens in AMNH and BMNH), seen in 1975 (Polivanov and Glushchenko 1977);

■ **Primorye Khanka lake**, August 1909 (two specimens in ZMMGU); **Troitskoye settlement**, west Lake Khanka, female collected, September 1909 (Chersky 1915); **Erdmana peninsula** (De Friz peninsula), Amursky inlet, Peter the Great bay, rare passage migrant, usually single birds seen and not of annual occurrence, 1947–1978 (Omel'ko 1971, Omel'ko and Omel'ko 1981); **Amba river mouth**, one, August 1976 (Glushchenko and Shibnev 1984); **Petrovka river mouth**, two, August 1976 (Glushchenko and Shibnev 1984); **Mongugay river mouth** (Barabashevka river), near “Kedrovaya Pad” Nature Reserve, south coast of Peter the Great bay, one, May 1975 (Glushchenko and Shibnev 1984); **Tumen estuary** (Tumangan river), southern entrance to Peter the Great bay, two juveniles on the seashore, September 1976 (Glushchenko and Shibnev 1984);

■ **Sakhalin Pomr' bay**, northern Sakhalin, probably breeding, undated (Nechaev 1991); **Moskal'vo bay**, June 1930 (specimen in ZMMSU); **Volchanka river mouth**, Baikal bay, 2–3 breeding pairs, 1988 (Nechaev 1991); **Pil'tun bay**, northern Sakhalin, probably breeding, undated (Nechaev 1991); **Astokh bay**, August 1988 (specimen in ZMMSU); **Goromay river mouth**, four breeding pairs, 1976 (Nechaev 1991); **Chaivo bay**, collected, August 1910 (Chersky 1915), nesting proven in 1975 when downy chicks were found and a density was estimated of one breeding pair per km² (Nechaev 1991), pairs seen in 1983, but none in 1984–1985 (Nechaev 1991), non-breeding birds frequently seen, 1988–1991 (Blokhin 1998a); **Dagi river mouth**, Dagi bay, 4–6 breeding pairs and 16 non-breeders, 1984 (Nechaev 1991); **Lyarvo island**, Dagi bay, two broods, July 1984 (Nechaev 1991); **Lakh river estuary**, presumably breeding, undated (Poyarkov 1992); **Nyyskiy bay** (Nyivo bay), northern Sakhalin, probably breeding, undated (Nechaev 1991); **Tyk river mouth**, c.10 breeding pairs, along the coast of the bay, 1984 (Nechaev 1991); southern **Viakhtu bay**, 3–4 breeding pairs, 1984 (Nechaev 1991); **Nabil' river** to **Vazi river mouth**, Nabil'sky bay, 4–5 broods found along a 20-km stretch of coastline, July 1981, 2–3 broods at Orkun'ya river mouth, 1986 (Nechaev 1991); **Lun'skiy bay**, northern Sakhalin, probably breeding, undated (Nechaev 1991); near **Kotikovo**, September 1926 (two females in YIO); **Terpeniya cape**, family groups reported, late July–August 1963, “probably nesting” (Bychkov 1976), but the validity of this record was questioned by V. A. Nechaev *in litt.* (1998); **Enoura**, Rutakagun, May 1936 (male in ANSP); **Kaizuka**, Chitose-mura, May 1935 (male in FMNH); **Aniva bay**, between the Tsusui river mouth and the Uspenovka (Naka-no) river, colony of c.10 pairs on the shores of the bay in late May 1935, three adults and three downy chicks collected, July 1936, 50–60 birds seen, 1937, but colony probably deserted in the 1950s following human settlement (Kuroda 1936, Austin and Kuroda 1953, Nechaev 1991); **Korsakov**, May 1906, May–July 1938 (six specimens in YIO); Chirie-mura (untraced), September 1926 (immature female in AMNH).

■ **JAPAN** The Spotted Greenshank is a rare passage migrant, found in many coastal areas of Japan, but nowhere in large numbers. Records (by island and prefecture) are as follows:

Hokkaido Hamatonbetsu-cho, Esashi-gun, June 1985 (WBSJ 1986); **Abashiri**, undated (Wildlife Information Center, Hokkaido 1985); **Shunkunitai**, Nemuro-shi, June 1978 and August 1979 (Takada *et al.* 1981 in Brazil 1991; also Wildlife Information Center, Hokkaido 1985), one, August 1993 (*Birder* 93/11); **Ishikari-gawa river mouth**, Ishikari-gun, one, 1972 (N. Yanagisawa *in litt.* 1998; also Wildlife Information Center, Hokkaido 1985); **Iburi**, undated (Wildlife Information Center, Hokkaido 1985); **Taiki**, Tokachi district, September 1980, September 1981 and May (unspecified year) (Iijima 1983, 1986 in Brazil 1991); **Muroran**, one collected, November 1883 (Yamashina 1930b, Austin and Kuroda 1953);

Honshu ■ Iwate Furukawa-numa, Rikuzentakada-shi, undated (WBSJ Miyako Chapter database); ■ **Miyagi Sendai-shi**, one, April 1994 (WBSJ 1996); ■ **Yamagata** unspecified locality, one, autumn 1983 (Brazil 1991); ■ **Fukushima** unspecified localities, a very rare passage migrant (unspecified years) (Wild Bird Society of Fukushima 1979); ■ **Chiba Shinhama**, Ichikawa-shi, one, September 1972 (N. Yanagisawa *in litt.* 1998); **Yatsu tidal flat** (Yatsu-higata), “a rarity” (unspecified years) (Brazil 1987); **Urayasu-shi**, one, September 1966 (N. Yanagisawa *in litt.* 1998); **Ichinomiya-gawa river mouth**, Chosei-mura, Chosei-gun, one, August 1971 (N. Yanagisawa *in litt.* 1998); unspecified locality, one, autumn 1982 (Brazil 1991); ■ **Tokyo Haneda**, one collected, September 1920 (Austin and Kuroda 1953); **Tama-gawa river mouth** (Rokugo-gawa), juvenile collected, September 1915 (Kuroda 1931b, WBSJ 1975); Ota-ku, one, September 1993 (*Birder* 93/11); unspecified locality, one, autumn 1983 (Brazil 1991); ■ **Kanagawa Kawasaki-shi**, four, September 1979 (WBSJ Kanagawa Chapter 1980); near **Yokohama**, undated (two specimens in ZSM); ■ **Niigata Kubiki-mura**, Joetsu area, two, October 1988, in rice paddies (Nakamura 1994); ■ **Toyama Horioka**, Shimminato-shi, August and September 1990 (WBSJ Toyama Chapter database); Kaio-machi, **Shimminato-shi**, August and October 1980 and August 1987 (WBSJ Toyama Chapter database); **Takaoka-shi**, one, August 1987 (N. Yanagisawa *in litt.* 1998); ■ **Ishikawa Takamatsu coast**, September 1982 (N. Yanagisawa *in litt.* 1998; also Brazil 1991); ■ **Shizuoka Showa-cho**, **Hamamatsu-shi**, September 1995 (WBSJ Totomi Chapter database); ■ **Aichi Fujimae tidal flat**, **Nagoya-shi**, one, September 1988 (N. Yanagisawa *in litt.* 1998); **Yatomi-cho**, Ama-gun, one, September 1973, one, September 1977 (N. Yanagisawa *in litt.* 1998); No. 2 reclamation, **Hekinan-shi**, single birds in September 1976, September 1977 and September 1980 (N. Yanagisawa *in litt.* 1998); **Nishio-shi**, one at Lot No. 2, May 1980, one at Lot No. 14, August 1992 (N. Yanagisawa *in litt.* 1998); **Isshiki-cho**, Hazu-gun, single birds in September 1981, August 1985 and August 1992 (N. Yanagisawa *in litt.* 1998); **Toyohashi-shi**, one, September 1992 (N. Yanagisawa *in litt.* 1998); Shiokawa tidal flat, **Tahara-cho**, Atsumi-gun, single birds in April 1975, November 1978, August 1981, September–November 1985, July 1986, August 1987 and September 1992 (N. Yanagisawa *in litt.* 1998); **Atsumi-cho**, Atsumi-gun, one, August 1987 (N. Yanagisawa *in litt.* 1998); ■ **Mie** unspecified locality, undated (Brazil 1991); ■ **Osaka Osaka bay**, May 1954 (Kobayashi 1955 in Brazil 1991); ■ **Hyogo Nishinomiya-shi**, one, April 1973 (N. Yanagisawa *in litt.* 1998), up to three at Kasshienhama reclamation, September 1998 (*Birder* 98/11); ■ **Wakayama Mihama-cho**, **Hidaka-gun**, juvenile, September 1993 (WBSJ 1994); **Wada**, Mihama-cho, Hidaka-gun, one, September 1993 (WBSJ Wakayama Chapter database); ■ **Tottori Kaseichi-gawa river mouth**, Otsuka, Tohaku-cho, Tohaku-gun, September 1993 (Ootsuki *in litt.* undated); ■ **Hiroshima Minoshima landfill**, **Fukuyama-shi**, single birds in September 1976 and August 1979 (WBSJ Hiroshima Branch 1998); Mitaraigawa-kako, **Hatsukaichi-cho** (Hatsukaichi-shi), one, September 1979 (WBSJ Hiroshima Chapter database); ■ **Yamaguchi Asa-gawa river mouth**, **Sanyo-cho**, one, September 1979 (N. Yanagisawa *in litt.* 1998); **Shimonoseki-shi**, one, April 1974 (N. Yanagisawa *in litt.* 1998), two, April 1992 (WBSJ 1993); **Ube-shi**, one, September 1977 (N. Yanagisawa *in litt.* 1998);

Shikoku ■ Tokushima Yoshino-gawa river mouth, Tokushima-shi, single birds in September and October 1975, September 1977, September 1980, August and September 1981, three, September 1983 (Ishihara 1982, N. Yanagisawa *in litt.* 1998), September 1988 (WBSJ Tokushima Chapter database), single birds in May 1993 (*Birder* 93/7), October 1993 (*Birder*

93/12), May 1994 (*Birder* 94/7); ■ **Ehime Seki-gawa river mouth**, Doi-cho, Uma-gun, one, September 1976 (Ishihara 1982); ■ **Shigenobu-gawa river mouth**, one, September 1980 (Ishihara 1982); ■ **Kochi** Yoshikawa-mura, ■ **Kami-gun**, juvenile, September 1986 (WBSJ 1987);

Kyushu ■ **Fukuoka Sone tidal flat**, Kokuraminami-ku, Kitakyushu-shi, two, January 1995 (K. Samoto *in litt.* 1998), five, September 1995 (WBSJ Kitakyushu Chapter database), three, October 1995 (*Birder* 95/12); unspecified locality, one, autumn 1983 (Brazil 1991); ■ **Saga** Daijukarami, Higashiyoga-cho, ■ **Saga-gun**, two, September and October 1997 (*Birder* 97/11, 97/12), two, September 1998 (*Birder* 98/11); ■ **Ariake reclamation**, rare passage migrant (unspecified years) (Wild Bird Society of Saga 1997); ■ **Kashima-gawa river mouth**, rare passage migrant (unspecified years) (Wild Bird Society of Saga 1997); ■ **Nagasaki Isahaya-shi**, three, September 1984 (P. Alström, U. Olsson and D. Zetterström *in litt.* 2000), one, August 1991 (WBSJ 1992); ■ **Kumamoto** unspecified locality, undated (Brazil 1991); ■ **Miyazaki Sadowara-cho**, Miyazaki-gun, two, September 1995 (WBSJ 1997a); ■ **Kagoshima** Susaki, Kida, ■ **Kajiki-cho**, Aira-gun, juvenile, September–October 1995 (*Birder* 95/12); ■ **Manose-gawa** river, Kaseda-shi, one, September 1995 (*Birder* 95/12), five, September 1985 (WBSJ 1986); unspecified localities, one collected, September 1918 (Austin and Kuroda 1953), three, autumn 1982 (Brazil 1991);

Okinawa island, Yonashiro-cho (Teruma), ■ **Nakagami-gun**, one, September 1981 (Brazil 1991, N. Yanagisawa *in litt.* 1998); ■ **Manko** (Naha and Yone), Tomigusuku-son, one, September–October 1985 (WBSJ 1986, Brazil 1991, N. Yanagisawa *in litt.* 1998);

Ishigaki-jima island, January 1986 (Environment Agency 1988 in Brazil 1991);

Iriomote-jima island, one, May 1982 (N. Yanagisawa *in litt.* 1998).

■ **KOREA ■ NORTH KOREA** It is a rare passage migrant, with records (by province) as follows: ■ **South Hamgyong Sinpo** (Sinpho), one collected, September 1912 (N. Kuroda 1918, Tomek 1999); ■ **North Pyongan Jongju**, February 1951 (Tomek 1999).

■ **SOUTH KOREA** In recent years this species has been recorded regularly on passage, and important concentrations have been found along the coasts of Kyonggi, Seoul, South Chungchong and North Cholla. Records (by province) are as follows: ■ **Kyonggi and Seoul Kanghwa island**, at least five at Yocha-ri, May 1988 (Long *et al.* 1988, Scott 1989), one, September (unspecified year) (Won 1991), three, April–May 1998 (Moores 1999); ■ **Yongjong island** (Yongjung island), 28 birds at Nunam-ri, May 1988 (Long *et al.* 1988, Scott 1989), one, September 1989 (Won 1991), two, April–May 1998 (Moores 1999); ■ **Sammok island**, one, September 1990 (Won 1991); ■ **Sorae** mudflats, Han river estuary, Inch'on city, 39 birds at Pori, Sorae, Inch'on city and along the west bank of the Han river near Kimpo, of which seven were collected, September 1961 and 1962 (Fennell and King 1964); ■ **Namyang bay**, Hwasong-gun, up to 30 at Yihwa-ri, up to 35 at Unp'yong-ri and three at Maehyang-ri, May 1988 (Long *et al.* 1988; also Scott 1989), minimum of 28 at Unp'yong-ri (and in Asan bay), May 1993 (Cresswell *et al.* 1993), three, May 1998 (Lee Woo-shin *in litt.* 1998), three, August 1999 (Park Jin-young *in litt.* 1999); ■ **South Chungchong Asan bay**, 16 birds at Kulmae-ri, May 1988 (Long *et al.* 1988, Scott 1989), feeding behaviour of two birds studied at Kulmae-ri, September 1989 (Swennen and Park 1991), minimum of 28 in Asan bay (and in Namyang bay), May 1993 (Cresswell *et al.* 1993); ■ **South Kyongsang Nakdong estuary**, two collected, October 1960 and April 1991, one, May 1998 (Lee Woo-shin *in litt.* 1998), one at Taema-dung, 1992–1993 (Kim and Won 1997); ■ **North Cholla Mangyong estuary** (Mankyung estuary) and ■ **Tongjin estuary**, Saemankeum area, up to two at the Tongjin estuary, April–May 1998 (Lee Woo-shin *in litt.* 1998), with a maximum count of 61 birds in the Saemankeum area in 1998 (N. Moores *per M. Rank in litt.* 1998), eight at the Mangyong estuary, September 1999 (Park Jin-young *in litt.* 1999); ■ **South Cholla Suncheon bay**, one, August 1999 (Park Jin-young *in litt.* 1999).

■ **CHINA ■ MAINLAND CHINA** The Spotted Greenshank is a passage migrant on the east coast of mainland China in spring and autumn, recorded in Hebei, Shandong, Jiangsu,

Shanghai, Zhejiang, Fujian, Guangdong and Hainan (with an erroneous report of breeding from Tibet: see Remarks 2), with records (by province) as follows:

■ **Hebei Beidaihe**, juvenile on the sandflats, September 1986, three, September 1990 (Williams *et al.* 1992; also Scott 1989); **Shijiutuo** ("Happy island"), south of Beidaihe, eight adults, August 1994, one, September 1994 (Dierschke and Heintzenberg 1994), one, September 1999 (P. Alström, U. Olsson and D. Zetterström *in litt.* 2000);

■ **Shandong Yellow River Delta Nature Reserve** (Huang He Sanjiaozhou), passage migrant, undated (Zhao Yanmao and Song Chaoshu 1995, one seen at Yiqian'er in the northern part of the reserve, spring 1998 (Barter *et al.* 1999c); **Guangli-Zhimai confluence**, c.50 km south of Yellow River Delta Nature Reserve, one, spring 1997 (Barter *et al.* 1999b), up to four, May 1998 (Barter *et al.* 1999c, M. Barter *in litt.* 2000); **Qingdao** coastal wetlands, "rare", undated (Liu Daiji *et al.* 1994);

■ **Jiangsu Sheyang salt works**, Yancheng Nature Reserve, passage migrant in August–September (unspecified years), two, winter 1989/1990 (Wang Hui and Du Jinjin 1993); **Yancheng Nature Reserve**, passage migrant, undated (Wang Hui 1991);

■ **Shanghai** eastern tidal flats of **Chongming Dao** island, including Chongming Dongtan Nature Reserve, occurring on migration, unspecified years (Zhou Shi'e 1982; also Scott 1989, Huang Zhengyi *et al.* 1991), June 1981 (Zhou Shi'e 1984 in Howes and Lambert 1987), three collected by local hunters, 1981–1983 (Cui Zhixing *et al.* 1985 in Howes and Lambert 1987), "low numbers", spring 1982 and autumn 1995 (Cui Zhixing and Chen Longxiao 1998), two, April 1990 (Barter *et al.* 1999a), one, April 1996 (M. Barter *in litt.* 2000); **Baoshan county**, undated (Huang Zhengyi *et al.* 1991); **Chengxing Dao** and Hengsha islands, undated (Scott 1989); **Pudong** coast, spring 1997 (Yu Weidong *et al.* 1998); **Nanhui county**, undated (Huang Zhengyi *et al.* 1991); **Jinshan county**, undated (Huang Zhengyi *et al.* 1991); east coast of **Miaogang**, one captured by a hunter, April 1998 (Ma Ming *et al.* 1998);

■ **Zhejiang Hangzhou bay**, one caught by local hunters, September 1986 (Howes 1987a), five, October 1986 (Wang Tianhou in Howes and Lambert 1987), eight, April 1987 (Scott 1989);

■ **Fujian** (note that Jinmen Dao island is under the administration of Taipei) **Fuzhou** (Foochow), female collected, November 1886 (La Touche 1925–1934); **Jinmen Dao** (Kinmen Tao, Kinmen or Quemoy) island, up to 18 birds, April 1991, probably a regular migrant in this area (Sha Chien-chung *in litt.* 1998);

■ **Guangdong** Futian Nature Reserve, Shenzhen, not officially recorded, but it must occur as birds are seen annually in Inner Deep Bay (SC);

■ **Hainan Haikou** (Hoihow), two collected, February 1891 (Styan 1894, Hartlaub 1899b, Hachisuka 1948), the site of collection probably being what is now Dongzhaigang Nature Reserve as that is the largest tidal flat in the vicinity of Haikou (SC), but there have been no records on Hainan since before the 1930s (Zou Fasheng *et al.* 2000).

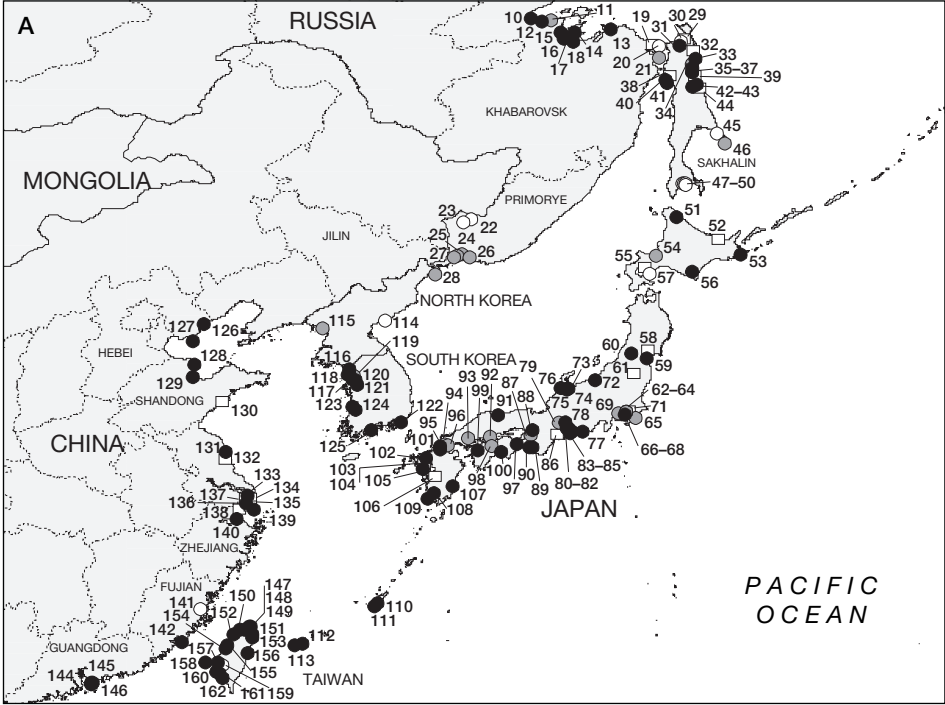
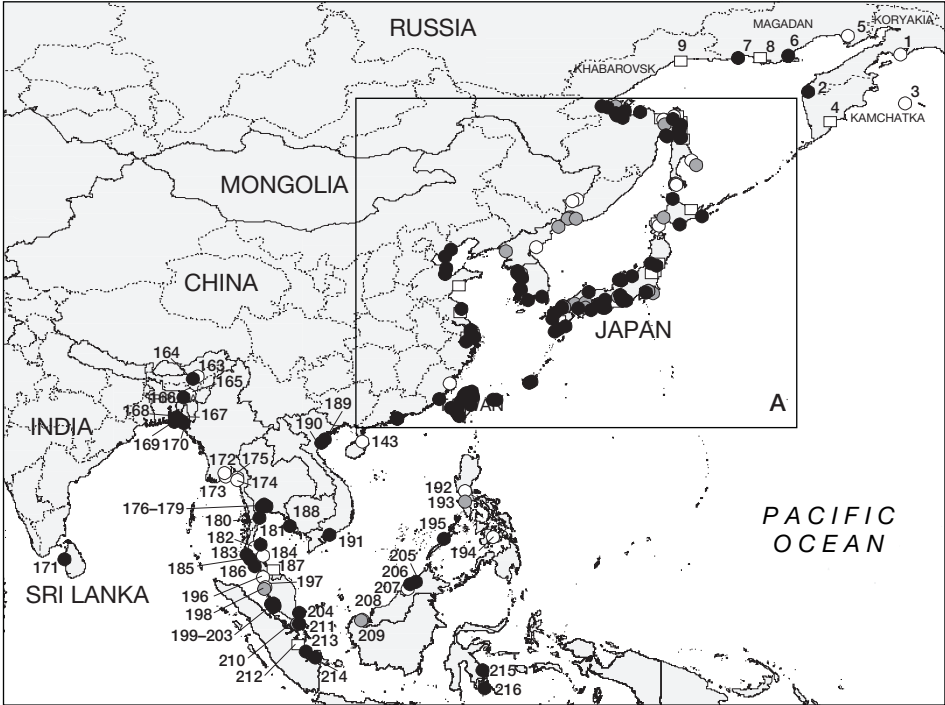
■ **HONG KONG** It is only recorded on the tidal flats of Inner Deep Bay, where it occurs annually on passage in substantial numbers: Inner Deep Bay, including **Mai Po**, **Tsim Bei Tsui** and **Tin Shui Wai**, passage migrant, recorded annually in spring, but autumn records are rarer and the numbers of birds lower (usually single birds). There were winter records in December 1993 and January 1997. Since the late 1980s (when the difficulties in the field identification of this species were resolved: see Kennerley and Bakewell 1986), c.20–60 birds have been estimated to occur in Inner Deep Bay during the spring migration each year, and the actual numbers may be higher because of the turnover of birds during the migration period; the maximum count was 58 birds in April 1993, but usually fewer than 10 birds can be seen on the same day during the spring (HKBS database).

■ **TAIWAN** It is a passage migrant, found mainly along the western coast of Taiwan, where the most extensive tidal flats are available, in Ilan county in north-eastern Taiwan and on the Penghu islands, with records as follows (for records on Jinmen Dao island see under

Fujian province above): **Chinshan**, Taipei, one, 1998 (CWBF database); **Yehliu** (Yeliou), Taipei county, one, May 1988 (CWBF database); **Kuantu**, Taipei, passage migrant, mainly recorded from late April to early May, maximum count of eight in May 1985 (CWBF database), December 1999 (*Oriental Bird Club Bull.* 31 [2000]: 49–57); **Hsutsokang** (Hsutsuokang), Tayuanhsiung, Taoyuan county, one, April 1996 (CWBF database); **Hsiapu**, Ilan county, November 1999 (*Oriental Bird Club Bull.* 31 [2000]: 49–57); **Kangnan**, Hsinchu county, passage migrant, the only site in Taiwan known to have a significant autumn migration, maximum count of 10 birds in August 1992 (CWBF database); **Lanyang estuary**, Ilan county, passage migrant, mainly recorded from late April to early May, maximum count of two in April 1980 (Sha Chien-chung *in litt.* 1998); **Kaomei** wetland, Taichung county, one, 1998 (CWBF database); **Chuanhsing**, Changhwa county, one, May 1986 (CWBF database); **Hualien estuary**, Hualien county, two single birds, May 1995 (CWBF database); **Aoku**, Chiayi county, passage migrant, only recorded in spring, maximum count of nine in May 1990 (CWBF database); **Penghu islands**, two subadults banded, August 1994 (CWBF database);

The distribution of Spotted Greenshank *Tringa guttifer* (maps opposite): (1) Korfa bay; (2) Moroshechnaya river; (3) Beringa island; (4) Avacha river mouth; (5) Gizhiga river mouth; (6) Malkachan river mouth; (7) Tauy river mouth; (8) Ola lagoon; (9) Okhota river mouth; (10) Uda river mouth; (11) Medvezhiy island; (12) Torom river mouth; (13) Mukhtel' lagoon; (14) Konstantin bay; (15) Osman bay; (16) Tugurski bay; (17) Kutyn river mouth; (18) Ul'ban river; (19) Schast'ya bay; (20) Langr island; (21) Amur estuary; (22) Khanka lake; (23) Troitskoye; (24) Erdmana peninsula; (25) Amba river mouth; (26) Petrovka river mouth; (27) Mongugay river mouth; (28) Tumen estuary; (29) Pomr' bay; (30) Moskal'vo bay; (31) Volchanka river mouth; (32) Pil'tun bay; (33) Astokh bay; (34) Goromay river mouth; (35) Chaivo bay; (36) Dagi river mouth; (37) Lyarvo island; (38) Lakh river; (39) Nyyskiy bay; (40) Tyk river mouth; (41) Viakhtu bay; (42) Nabil' river; (43) Vazi river mouth; (44) Lun'skiy bay; (45) Kotikovo; (46) Terpeniya cape; (47) Enoura; (48) Kaizuka; (49) Aniva bay; (50) Korsakov; (51) Hamatonbetsu-cho; (52) Abashiri; (53) Shunkunitai; (54) Ishikari-gawa river mouth; (55) Iburi; (56) Taiki; (57) Muroran; (58) Furukawa-numa; (59) Sendai-shi; (60) Yamagata; (61) Fukushima; (62) Shinhamu; (63) Yatsu tidal flat; (64) Urayasu-shi; (65) Ichinomiya-gawa river mouth; (66) Haneda; (67) unallocated; (68) Tama-gawa river mouth; (69) Kawasaki-shi; (70) unallocated; (71) Yokohama; (72) Kubiki-mura; (73) Horioka; (74) Shimminato-shi; (75) Takaoka-shi; (76) Takamatsu coast; (77) Hamamatsu-shi; (78) Nagoya-shi; (79) Yatomi-cho; (80) Hekinan-shi; (81) Nishio-shi; (82) Isshiki-cho; (83) Toyohashi-shi; (84) Tahara-cho; (85) Atsumi-cho; (86) Mie; (87) Osaka bay; (88) Nishinomiya-shi; (89) Hidaka-gun; (90) Wada; (91) Kaseichi-gawa river mouth; (92) Fukuyama-shi; (93) Hatsukaichi-cho; (94) Sanyo-cho; (95) Shimonoseki-shi; (96) Ube-shi; (97) Yoshino-gawa river mouth; (98) Seki-gawa river mouth; (99) Shigenobu-gawa river mouth; (100) Kami-gun; (101) Sone tidal flat; (102) Saga-gun; (103) Ariake reclamation; (104) Kashima-gawa river mouth; (105) Isahaya-shi; (106) Kumamoto; (107) Sadowara-cho; (108) Kajiki-cho; (109) Manose-gawa; (110) Nakagami-gun; (111) Manko; (112) Ishigaki-jima; (113) Iriomote-jima; (114) Sinpo; (115) Jongju; (116) Kanghwa island; (117) Yongjong island; (118) Sammok island; (119) Sorae; (120) Namyang bay; (121) Asan bay; (122) Nakdong estuary; (123) Mangyong estuary; (124) Tongjin estuary; (125) Suncheon bay; (126) Beidaihe; (127) Shijituo; (128) Yellow River Delta Nature Reserve; (129) Guangli-Zhimai confluence; (130) Qingdao; (131) Sheyang salt works; (132) Yancheng Nature Reserve; (133) Chongming Dao; (134) Baoshan county; (135) Chengxing Dao; (136) Pudong; (137) Nanhui county; (138) Jinshan county; (139) Miaogang; (140) Hangzhou bay; (141) Fuzhou; (142) Jinmen Dao; (143) Haikou; (144) Mai Po; (145) Tsim Bei Tsui; (146) Tin Shui Wai; (147) Chinshan; (148) Yehliu; (149) Kuantu; (150) Hsutsokang; (151) Hsiapu; (152) Kangnan; (153) Lanyang estuary; (154) Kaomei; (155) Chuanhsing; (156) Hualien estuary; (157) Aoku; (158) Penghu islands; (159) Wushulin; (160) Tsengwen estuary; (161) Tainan city; (162) Chuhou; (163) Brahmaputra river; (164) Kaziranga National Park; (165) Surma valley; (166) Hakaluki haor; (167) Char Piya; (168) Patenga; (169) Nijhum Dweep; (170) Chittagong district; (171) Palavi; (172) Yangon; (173) Elephant point; (174) Bilugyun island; (175) Kyaikkami; (176) Samut Sakhon; (177) Bang Pu; (178) Meklong; (179) Samut Songkham; (180) Khao Sam Roi Yot National Park; (181) Ko Samui; (182) Surat Thani; (183) Phangnga; (184) Pak Phanang; (185) Krabi bay; (186) Ko Libong; (187) Pattani bay; (188) Kaoh Kapik; (189) Xuan Thuy Nature Reserve; (190) Nghia Hung; (191) Duyen Hai; (192) Bulacan province; (193) Batangas province; (194) Minglanilla; (195) St Paul's SRNP; (196) Kuala Kedah; (197) Kuala Kurau; (198) Tanjung Belanak; (199) Tanjung Karang; (200) Kuala Selangor; (201) Jeram; (202) Kapar; (203) Pulau Tengah; (204) Mersing; (205) Papar; (206) Kuala Penyu; (207) Sundar; (208) Buntal; (209) Bako; (210) Changi; (211) Jurong/West Coast Road; (212) Hutan Bakau Pantai Timur; (213) Berbak National Park; (214) Banyuasin peninsula; (215) Kendari; (216) Karing Karing.

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



Wushulin, Yung-an, Kaohsiung, one collected, November 1922, the first record for Taiwan (Lin Wen-horn 1997); **Tsengwen estuary**, Tainan county, one, 1998 (CWBF database); Szutasu, **Tainan city**, passage migrant, maximum count of 12 birds in August 1996 (CWBF database); **Chuhou** (Chuhu), Kaohsiung, one, May 1987 (CWBF database).

■ **INDIA** It is an extremely rare non-breeding visitor (see Remarks 3), with records (by state) as follows:

■ **Assam** near the **Brahmaputra river**, “occurs on passage, both autumn and spring in the wider expanses of cultivation and swamps”, undated (Baker 1926–1935); Daphlang beel, Baguri, **Kaziranga National Park**, one, April 1994 (Bhattacharjee *et al.* 1996, Barua and Sharma 1999); **Surma valley**, “on passage, both autumn and spring”, undated (Baker 1926–1935).

Unconfirmed reports include: Ranthambhor National Park, Rajasthan, one, February 1997 (M. Narcy *in litt.* 1999); Gujarat, undated (see Grimmett *et al.* 1998); Calcutta district, undated (Dement'ev and Gladkov 1951–1954).

■ **NEPAL** There is an unconfirmed report from Sauraha, Chitwan National Park, in January 1981 (del Nevo and Ewins 1981).

■ **BANGLADESH** The Spotted Greenshank had long been suspected to winter in Bangladesh (e.g. Rashid 1967, Khan 1982, Ripley 1982), but has only recently been confirmed to occur there. Harvey (1990) considered it a “local winter visitor” in the south-east. The count of 300 in winter 1988 is remarkable, and represents by far the largest concentration of this species ever found. Records are as follows: **Hakaluki Haor**, Chatla Beel, 25 birds, December 1992 (Thompson *et al.* 1993); **Char Piya** island, Noakhali district, three, January–February 1989 (Bakewell and Howes 1989); **Patenga**, up to two birds, January 1988, January and March 1990 and January 1991 (Thompson *et al.* 1993, Thompson and Johnson 1996); Padma-Meghna delta, including 200 birds at **Nijhum Dweep** and 100 birds at Moulovir Char, January 1988 (Rashid 1989), but in the subsequent three years the winter totals for these areas were three, one and two individuals respectively (Thompson *et al.* 1993); South Halishahar beach, **Chittagong district**, eight birds, January 1988 (N. P. van Zalinge *in litt.* 1989).

■ **SRI LANKA** It is known by a single record from the north of the island: Hevativu, south of **Palavi** (Puttalam), 1991 (de Silva 1992), but this record “needs confirmation” (Hoffmann 1996).

■ **MYANMAR** The extensive intertidal mudflats of the Irrawaddy delta and/or Arakan coast could prove to be an important wintering areas for this species, but it is as yet known by the following handful of records: **Yangon** (Rangoon), April 1902 (Harrington 1909b, female in BMNH); between **Elephant point** and China Bakeer, Hanthawaddy district, two, December 1875 (Armstrong 1876, specimen in BMNH; also Smythies 1986); **Bilugyun island** (Beloo Gyoon island), December 1876 (specimen in BMNH; also Smythies 1986); **Kyaikkami** (Amherst), December 1876, January 1877 (Hume and Davison 1878, Harting 1883, two specimens in BMNH) (it is possible that these were all taken on Bilugyun island).

■ **THAILAND** It is an annual but rare winter visitor, chiefly to the peninsula (Lekagul and Round 1991), with records as follows: **Samut Sakhon**, one, November–December 1984 (Bijlsma and de Roder 1986), two, April 1989, two at Rangjan, May 1989 (*Bangkok Bird Club Bull.* 6, 6 [1989]: 8–9), three, April 1999 (*Bangkok Bird Club Bull.* 6, 8 [1989]: 15); **Bang Pu** (Bang Poo), several sightings of 1–3 birds during the 1980s, between 29 October and 4 May (P. D. Round *in litt.* 1998); **Meklong**, March 1927 (female in FMNH); **Samut Songkhram**, including Wat Bang Boe, undated (Deignan 1963), one, October 1991 (P. D. Round *in litt.* 1998); **Khao Sam Roi Yot National Park**, Prachuap Khirikhan province, annual winter visitor in small numbers (1–4 birds) to beaches outside the national park boundary, with most records falling between November and February (Parr *et al.* 1993b, P. D. Round *in litt.* 1998), five on Thung Noi beach, December 1990 (*Bangkok Bird Club Bull.* 8, 2 [1991]: 11); **Ko Samui**, Surat Thani, one,

February 1990 (T. Tobish *per* P. D. Round *in litt.* 1998); **Surat Thani** (Bandon), spring (unspecified year) (Jørgensen 1949 in Wells 1999); Laem Pakarang, **Phangnga** province, one, October 1994 (*Bird Conserv. Soc. Thailand Bull.* 12, 2 [1995]: 13); **Pak Phanang** (Laem Talumphuk Non-Hunting Area), Nakhon Si Thammarat, collected, spring (unspecified year) (Jørgensen 1949); **Krabi bay** (Pak Nam Krabi), a single sighting at Bo Muang beach, January 1979 (M. Chapman *per* P. D. Round *in litt.* 1998), annual winter visitor and perhaps spring passage migrant, between one and 10 birds recorded most winters, the largest count being 20, March 1991 (P. D. Round *in litt.* 1998), 15–20, March 1992 (P. D. Round *in litt.* 1998), 20 birds, March 1993 (P. Shepherd *in litt.* 1999), 25 birds, December 1997 (A. Drewitt *in litt.* 1999); **Ko Libong** Non-Hunting Area, Trang province, annual winter visitor and perhaps spring passage migrant with between one and 10 birds recorded during most winters, but also 11 individuals, December 1985 (Parish 1986), maxima of 22 birds in March 1992 (*Bangkok Bird Club Bull.* 9, 5 [1992]: 11–12, P. D. Round *in litt.* 1998) and 26 birds in February 2000 (*Oriental Bird Club Bull.* 32 [2000]: 66–76); **Pattani bay**, undated (AWB *per* P. D. Round *in litt.* 1998).

■ **CAMBODIA** It is known by a single record: **Kaoh Kapik**, Koh Kong, 20 km south of Koh Kong town, 13 birds, January 1996 (Edwards 1997, Sun Hean *in litt.* 1997).

■ **VIETNAM** It is a regular non-breeding visitor in small numbers to the Red River delta and there is a single record from southern Vietnam. Records are as follows: **Xuan Thuy Nature Reserve**, Nam Dinh, March 1989 (Scott *et al.* 1989), two, March–April 1991 (Lane *et al.* 1994), many sightings of 1–14 birds, October to April, from 1994 onwards (J. C. Eames and Nguyen Cu *in litt.* 1997, Pedersen *et al.* 1998); **Nghia Hung** district, Nam Dinh, at least two at the Cua Day estuary, April 1994 (Pedersen *et al.* 1998), five, May 1996 (Pedersen and Nguyen Huy Thang 1996); **Duyen Hai** district, Tra Vinh, one, July 1996 (Eames and Tordoff *in prep.*).

■ **PHILIPPINES** In the Philippines, it was characterised as “probably an occasional winter visitor... although in comparatively small numbers” (McGregor and Manuel 1936), and it is best now considered probably only a vagrant. All records have been from coastal areas, mudflats and tidal flats (Dickinson *et al.* 1991), as follows:

Luzon **Bulacan province**, 1927 (Dickinson *et al.* 1991); **Batangas province**, 1967 (Dickinson *et al.* 1991);

Cebu **Minglanilla**, November 1906 (McGregor and Manuel 1936, McClure and Leelavit 1972, male in AMNH);

Palawan **St Paul’s Subterranean River National Park**, February 1994 (P. A. J. Morris *in litt.* 1994).

■ **MALAYSIA** Peninsular Malaysia appears to be one of the main wintering grounds for this species, and a flock of 90 birds was recorded in the 1960s, although only small numbers have been found there in recent years. It is also known from Sabah and Sarawak on Borneo, with records as follows:

■ *Peninsular Malaysia* **Kuala Kedah**, Kedah, two collected, November 1907 (Robinson and Kloss 1910–1911); **Kuala Kurau**, Perak coast, three collected, February 1908 (Robinson and Kloss 1910–1911); **Tanjong Belanak**, Perak, more than 90 birds, November 1964 (Medway and Nisbet 1965, Wells 1999); **Tanjung Karang**, Selangor, three, November 1988, 19 birds, December 1988 (Bakewell 1989), up to c.16 birds, April 1989, one, May 1989 (*Enggang* 2, 5 [1989], Wells 1999), one, February 1989 (*Enggang* 2, 3 [1989]), two, January 1990 (*Enggang* 3, 1 [1990]); **Kuala Selangor**, three, December 1970 (Wells 1974), 29 birds on the saltpans, March 1978 (Wells 1984; also Scott 1989), one, October 1995 (D. Rogers *in litt.* 1999); **Jeram**, Selangor, two, May 1963 (Medway and Nisbet 1965); **Kapar** power station, Selangor, two, August 1989 (*Enggang* 2, 9 [1989], K. Kumar *in litt.* 2000), six, March 1992 (Wells 1999), at least three, November 1998 (*Suara Enggang* November–December 1998), one, March 1999 (*Suara Enggang*

March–April 1999), three, April 1999 (K. Tagi *in litt.* 1999); **Pulau Tengah**, Selangor, one, February 1986 (Wells 1990c), one, January 1990 (*Enggang* 3, 1 [1990]); **Mersing**, Johor, one, January 1983 (D. Diskin *in Wells* 1999);

■ **Sabah Papar**, February 1967 (Gore 1968), January and September 1968 and October 1969 (Smythies 1981), December 1984 (M. D. Bachelor *per* K. Kumar *in litt.* 2000); near **Kuala Penyu**, one feeding on tidal pools, February 1986 (M. D. Bachelor *per* K. Kumar *in litt.* 2000);

■ **Sarawak Sundar**, November 1934 (Smythies 1981); **Buntal**, February 1913 (Smythies 1981); **Bako** bay, September 1968 (Croxall 1969).

■ **SINGAPORE** It is a very rare winter visitor with only two records and none confirmed since 1981 (Lim 1994a): **Changi**, one, November–December 1981 (Wells 1986); **Jurong/West Coast Road**, up to five birds, October–December 1963 (Medway and Wells 1964).

■ **INDONESIA** It is a rare non-breeding visitor to Sumatra, Sulawesi and Buton island off south-east Sulawesi, with records as follows:

Sumatra ■ **Jambi Hutan Bakau Pantai Timur**, two, undated (Scott 1989); **Berbak National Park**, eight seen at Sungai Simbur Naik and Dessa Cemara, April 1986 (Silvius 1987); ■ **South Sumatra Banyuasin peninsula** (or adjacent Musi delta), 21 birds, December 1988 (Verheugt *et al.* 1993);

Sulawesi ■ **South-East Sulawesi Kendari** fishponds, November 1996 (Catterall undated); *Buton* **Karing Karing** fishponds, October–November 1996 (Catterall undated).

POPULATION The Spotted Greenshank always appears to have been rare, possibly because of the limited availability of its specialised breeding habitat. Much of its breeding range is in remote areas, and it occurs at very low densities in its non-breeding range (and is difficult to identify: see Remarks 1), so its numbers are hard to assess. It has been estimated to total about 1,000 birds (e.g. by Rose and Scott 1997), but Howes and Lambert (1987) suggested that its population might be much lower, and there is no definite evidence that its global population totals more than a few hundred individuals. There has recently been an overall increase in the number of records, presumably because of improvements in identification skills and equipment and increased numbers of observers, but its numbers appear to have declined in some parts of its range (e.g. Japan and Peninsular Malaysia), perhaps indicating that it is being affected by habitat loss and other pressures.

Russia There are presumably fewer than 20 pairs in total on the north coast of the Sea of Okhotsk (including western Kamchatka) (AVA). About 200–300 birds are estimated to breed on the south-west coasts of the Sea of Okhotsk (Voronov and Pronkevich 1991b). It became extinct in southern Sakhalin in the 1940s or 1950s (Nechaev 1991), and the total population in northern Sakhalin was estimated at 40–50 pairs during surveys in 1985–1990 (V. A. Nechaev *in litt.* 1997). It has become extinct at several sites on Sakhalin, including Aniva bay and Baikal bay, and in southern Chaivo bay 10 pairs nested in 1975–1976, but only three pairs in 1983 and none since 1984 (Nechaev 1991). Flocks of 50 birds were recorded in southern Sakhalin in the 1930s (Kuroda 1936), but not more than 7–10 birds nowadays (Nechaev 1991).

East Asia This species occurs widely on passage in East Asia, generally in small numbers, but some significant concentrations have been found at several sites. A total of 98 to 135 birds was seen on the west coast of South Korea during a survey in May 1988 (Long *et al.* 1988). In the late 1990s, Namyang bay and the Mangyong estuary were found to support more than 50 birds on migration, and Kanghwa island, Yongjong island and Asan bay support about 10–20 birds (Park Jin-young *in litt.* 1999). In mainland China, the highest count was up to 18 birds on Chinmen island off Fujian in April 1991 (Sha Chien-chung *in litt.* 1998), and several sites on Taiwan regularly support small concentrations (see Distribution). Relatively large numbers occur on passage in Hong Kong, particularly in spring, for example at least 33 in 1987, 55–60 in 1988 and 23 in 1989 (HKBWS database). The peak counts of

adults in April and first-summer birds in May varied from 19 to 67 birds between 1990 to 1996, but the actual number of birds using Inner Deep Bay is almost certainly higher (Carey *et al.* in prep.).

South Asia There are only a few records from South Asia, but a remarkable concentration of 300 birds was found in Bangladesh in winter 1988 (Rashid 1989). Such large numbers have not been counted since then, and it is considered to be a “scarce” winter visitor to coastal regions, not always recorded or recorded in small numbers in January counts in the Padma-Meghna delta in the 1990s (Thompson *et al.* 1993, Thompson and Johnson 1996).

South-East Asia No large concentrations have been found in Thailand (Howes and Lambert 1987), and there are probably fewer than 100 birds present each non-breeding season (P. D. Round *in litt.* 1998). In Cambodia, there is a single record of 13 birds at one locality in 1996 (Edwards 1997, Sun Hean *in litt.* 1997). In Vietnam, its winter numbers on the Red River delta are small (Pedersen *et al.* 1998, J. C. Eames and Nguyen Cu *in litt.* 1997). In Peninsular Malaysia, more than 90 birds were recorded at one site in the 1960s (Medway and Nisbet 1965), and there were other relatively large counts in the 1970s and 1980s, but no significant concentrations have been found in the 1990s, possibly indicating that it has declined there (see Distribution; also Wells 1999). There are few records from Myanmar (see Distribution), but the extensive coastal wetlands there may prove to be an important wintering area for this species.

ECOLOGY Habitat On its breeding grounds in Russia, this species requires a combination of sparse larch forest for nesting, wet coastal meadows interspersed with piles of driftwood to provide shelter for the chicks, and coastal mudflats which are used by the adults for feeding (Pronkevich and Voronov 1992). Apparently suitable habitat occurs widely in the coastal lowlands surrounding the Sea of Okhotsk, from the mouth of the Amur river in Khabarovsk to southern Kamchatka, and is widespread in northern Sakhalin (AVA). This species has only been recorded from a few isolated sites in this large area, possibly because much of this region remains poorly known or because of some unknown ecological specialisation. In north-eastern Sakhalin, it breeds in areas with damp coastal meadows and in sparse boggy larch forests near the seashore or further inland, in places with brackish and freshwater ponds, lakes, ditches, shallow coastal lagoons and wide muddy channels (Nechaev 1991). It nests on the edge of the larch stands and in the vicinity of lakes and bogs, sometimes as far as 10 km inland, and feeds on the muddy shores of tidal lagoons or shallow lakes (Nechaev 1991).

Wintering birds are found on estuaries, coastal mudflats and lowland swamps, occasionally with mangroves or beds of seagrass, and they are sometimes encountered in willow beds, meadows by streams, saltpans and rice-paddies (del Hoyo *et al.* 1996). They tend to feed in tide pools and shallows, and do not generally associate with the closely related Common Greenshank *Tringa nebularia* either when feeding or roosting, and, unlike that species, they will roost by perching in mangrove trees or on the bamboo stakes of offshore fish-traps at high tide (Bijlsma and de Roder 1986). Some reports suggest that this species frequents the more exposed, sandy or gravelly beach areas: on the sea coast of Myanmar, Armstrong (1876) found them feeding on extensive sandbanks in the company of a large flock of sandpipers, although while Smythies (1986) considered that they inhabited mudflats fully exposed to the sea, but “not up tidal creeks”, Oates (1883) was of the opinion that they ranged up the banks of larger rivers with tidal influence. Of five individuals studied in Thailand in 1984, four were recorded on coastal mudflats and one in a saltpan (Bijlsma and de Roder 1986). Ripley (1982) stated that the species “affects sandbars and mudflats in large rivers and near the sea.”

Food In Russia this species feeds on sticklebacks *Pingitius*, oligochaetes, polychaetes, small crustaceans, molluscs and other aquatic and terrestrial invertebrates (Yakhontov 1963, Nechaev 1978, Babenko and Masterov 1997, B. A. Voronov *in litt.* 1997). In the vicinity of

their breeding grounds, the food consists primarily of sticklebacks, polychaete worms, small crustaceans and insects (Nechaev 1982). They feed by probing into mud; catching their prey from the surface; running rapidly after receding waves to catch small crustaceans; plunging their heads into deeper water; and probing in grassy swamps to catch sticklebacks (Nechaev 1984).

In the non-breeding range, its prey includes small fish, crustacea, larvae and small molluscs (Baker 1926–1935; also Smythies 1986), and it apparently shows a preference for crabs (del Hoyo *et al.* 1996). In Thailand, prey species included fish and swimming crabs of the family Portunidae, and probably also the family Oxipodidae (Howes and Lambert 1987). It generally feeds along the tide-line during low tides and roosts at high tide, preferably in shallow water (del Hoyo *et al.* 1996). While foraging, it takes single and multiple pecks with its bill slightly opened, moving its head rhythmically from side to side, and it also runs after some prey, perhaps small fish, with its bill held low (Bijlsma and de Roder 1986, Howes and Lambert 1987, del Hoyo *et al.* 1996). In Korea, Swennen and Park (1991) observed the feeding behaviour of two autumn migrants feeding on soft mudflats, which only took crabs *Macrophthalmus japonicus* of an estimated carapace width of 15–20 mm, and neglected the small fish *Acanthogobius hasta* and numerous shrimps *Exopalaemon carinicauda* that they encountered.

Breeding The display period starts in late May and continues until early July (Gerasimov 1985, Nechaev 1991). On Sakhalin it tends to breed in loose clusters of 3–10 pairs, the nests being built from late May to mid-June in sparsely wooded swamps, on wind-bent larch trunks or thick branches, 2–4.5 m above ground; they are made of larch twigs and bunches of bushy lichens (*Alectoria*, *Usnea*), and are always well camouflaged from above by the tree canopy (Nechaev 1982, 1984, 1991). The clutches, normally of four eggs, are laid in the first half of June, and are incubated by both parents, and the chicks hatch between the last week of June and mid-July, whereupon the adults lead them to the coastal meadows, where the broods stay near shallow ponds fringed with dense vegetation; several pairs and their broods often aggregate together to distract intruding people, reindeer or crows, and the juveniles are able to fly and leave the breeding areas by mid-August or early September (Nechaev 1982, 1984, 1991).

Migration In spring, most birds of this species arrive in northern Sakhalin from the mainland (and small numbers from Japan) in the last 10 days of May, and the return migration of adults occurs in late July–early August with juveniles leaving in early September (Nechaev 1991). Passage migrants occur in Russia in late May and from mid-August to early October, with a peak between 23 August and 22 September (Bychkov 1976). In South Korea, spring observations have fallen in the period 1–22 May and in autumn it is recorded between 4 September and 13 October (Swennen and Park 1991). In Hong Kong, it is mainly found on northward migration in April and May (HKBWS database), and it is also most often seen during spring migration on Taiwan (Sha Chien-chung *in litt.* 1998). The pattern of migratory records suggests that the spring migration route is to the west of Japan, perhaps on quite a narrow front passing through the Korean Peninsula, while in autumn it occurs on a somewhat broader front including Japan (Brazil 1991).

THREATS *Habitat loss* Coastal wetlands are under pressure from development throughout Asia, and are being increasingly used by a burgeoning human population (see, e.g., Scott 1989). Given its tiny population and specialised habitat requirements, this species may be particularly vulnerable to these changes, some of which are outlined below on a country-by-country basis. *Russia* Potential breeding habitat for this species is being lost on the northern coast of the Sea of Okhotsk, for example in Tauisk bay, because of grazing and continuous disturbance (AVA). In Khabarovsk, grazing by domesticated reindeer is degrading some of the most important coastal meadow habitat used by broods of chicks, for example in Tugursky

bay and Konstantin bay (B. A. Voronov *in litt.* 1997). Habitat changes as a result of economic development and improved access to the areas used by this species are also of concern in Primorye (Yu. N. Nazarov *in litt.* 1997). On Sakhalin, wetland breeding habitat has been lost as areas have been developed for the exploitation of oil and gas reserves (V. A. Nechaev *in litt.* 1997). *Japan* Large-scale coastal reclamation has already been completed or is planned in many parts of Japan, although in recent years there have been some changes in attitude towards tidal reclamation (all information in this section is from WBSJ staff verbally). A sea wall was constructed at Isahaya bay in 1997, which cuts off 30 km² of tidal flat (the largest such area in Japan) from the sea. An airport has been constructed near Daijukarami tidal flat in Saga prefecture, and another is planned near Sone tidal flat at Kitakyushu. A 4 km² artificial island at Wajiro in Fukuoka prefecture is now under construction. The Wajiro tidal flat, a potential stopover site for Spotted Greenshank, has become degraded and fouled with deoxygenated sediments. A proposed dyke at the mouth of Yoshino-gawa in Shikoku, a regular site for this species in Japan, may still go ahead, but the citizens of Tokushima city voted in a referendum in early 2000 for this project to be abandoned. The proposed reclamation of Fujimae tidal flat in Nagoya prefecture was abandoned in 1999. *Korea* The tidal flats in Korea are important for this species because they are the first rich feeding grounds encountered on autumn migration, allowing birds to start the prebasic moult before leaving for the wintering grounds in South-East Asia, and in the spring they represent the last opportunity for birds to build up energy reserves for the flight to their breeding grounds in the north (Swennen and Park 1991). Major reclamation of tidal mudflats is planned in South Korea, however, including the most important areas for Spotted Greenshank, Namyang bay and Mangyong estuary (Saemankeum area), which could be lost in the near future (Park Jin-young *in litt.* 1999), and many other tidal flats are also facing threats from development projects (Park Jin-young and Kim Jin-han verbally 1999; see equivalent section under Spoon-billed Sandpiper *Eurynorhynchus pygmeus*). *Mainland China* Many of the coastal wetlands used by this species in mainland China are under pressure; for example, the mudflats at Dongwangsha and Tuanjiesha on Chongming Dao island in Shanghai have been reduced from 220 km² to 160 km² since reclamation began in 1991 (Kong Yi *et al.* 1999). Although the silt brought by the Yangtze river leads to a 130–140 m annual extension of the eastern coastline of Chongming Dao island, large-scale reclamation has surpassed the accretion speed, resulting in the continuous reduction of mudflat area and changes in the distribution pattern of benthos and vegetation, and this has directly disturbed and destroyed shorebird habitats (Kong Yi *et al.* 1999). The construction of a sea wall in 1996–1997 led to the reclamation of a strip of coastal habitat, and a new sea wall planned to be built 2.5 km seawards from the existing sea wall would enclose all the reeds and bulrushes, only leaving a bare mudflat of several hundred metres wide outside the wall (Kong Yi *et al.* 1999). In addition, the growth of mudflats at Chongming Dao island is likely to be much slower after the Three Gorges Dam is in operation in under 10 years' time (SC), and there are c. 1,500 water buffalo grazing on the marshes which have trampled and destroyed much of the vegetation (Kong Yi *et al.* 1999). At the Yellow River delta, another important area for shorebirds in China, the main threat is reclamation of wetlands to create farmland and (particularly) to extract oil, and reclamation for shrimp farming is also a problem (Zhu Shuyu *et al.* 1999). A total of 15.6 km² of mudflat has been lost from the estuaries between Tao He and Xiaodao He because of reclamation for oil extraction; large-scale exploration has recently been conducted at the mouth of the old channel of the Yellow River and, if oil reserves are found there, a large area of mudflat will be lost (Zhu Shuyu *et al.* 1999). *Bangladesh* Destruction of coastal wetlands and an increased use of mudflats by people are presumably affecting the species (P. M. Thompson *in litt.* 1997). For example, the proposed Sandwip Cross-dam was considered likely to cause considerable alteration in coastal habitats of the Padma-Meghna delta, but it is not known what these effects are likely to be, nor their impact on bird populations (Rashid

1989). *Thailand* The reclamation and urbanisation of coastal areas pose the greatest threats to this species (P. D. Round *in litt.* 1998). In general, a combination of high hunting levels and habitat modification has greatly reduced the populations of wintering waders in the country (Ruttanadukul and Ardseungnern 1987). The construction of salt pans and shrimp ponds at Pattani bay and Ko Libong is greatly reducing the available area of foraging habitat (Scott 1989). Wetland areas in and around Khao Sam Roi Yot National Park in Thailand face a bleak future: encroachment continues apace, community support for the park is suppressed by the activities of wealthy landlords, and there is little political resolve to facilitate the management process (Parr *et al.* 1993b). The coastal flats immediately behind the park headquarters were being parceled up and sold to property developers in 1997; if this activity was allowed to go ahead, it would destroy the shorebird habitat in the national park (*Bird Conserv. Soc. Thailand Bull.* 14, 1 [1997]: 15). Shorebird wintering areas in the Inner Gulf sites, such as Bang Poo, have been almost totally destroyed by industrial development during the 1990s: it is unlikely that the Spotted Greenshank will return unless areas of suitable habitat are re-created and set aside for conservation purposes (P. D. Round *in litt.* 1998). *Cambodia* Aquacultural development and charcoal production is rapidly reducing the available area of mudflats and mangroves in Cambodia, and the mangrove area at Kaoh Kapik was virtually clear-felled in August–September 1998 (Sun Hean *in litt.* 1997, C. M. Poole *in litt.* 1999). *Vietnam* Three main threats have been identified to the Red River delta area (which are relevant to many of the estuarine or coastal sites in which the species winters): reclamation of intertidal areas for aquacultural development, disturbance by collectors of marine products, and intensive hunting (Pedersen *et al.* 1998, which see for fuller discussion, summarised in the equivalent section under Black-faced Spoonbill *Platalea minor*). *Malaysia* Threats to the coastal wetlands of Peninsular Malaysia are outlined in the equivalent section under Milky Stork *Mycteria cinerea* and Lesser Adjutant *Leptoptilos javanicus*.

Hunting *Russia* In Khabarovsk, hunting and killing by dogs could be affecting this species (B. A. Voronov *in litt.* 1997). Illegal hunting is one of the main threats to this species on the breeding grounds on Sakhalin (Nechaev 1984). *Mainland China* Hunting of shorebirds is a threat to all shorebird species in Shanghai (and presumably elsewhere in mainland China); Ma Ming *et al.* (1998) found 398 birds of 19 shorebird species captured for food there in spring 1998, including one Spotted Greenshank, and estimated that there were c.500 active trappers. Kong Yi *et al.* (1999) estimated that there were 40–50 bird trappers on the eastern coast of Chongming Dao island in Shanghai, and reported that eel fry collectors hunt and sell birds in their spare time, with daily catches varying from several to dozens of birds. *Thailand* Local villagers at Pattani bay and Ko Libong intensively hunt and snare waterbirds (Scott 1989), and although the Spotted Greenshank was not reported amongst the 8,379 shorebirds trapped by villagers around Pattani bay in 1986 (Ruttanadukul and Ardseungnern 1987), it presumably suffers from this intense and indiscriminate persecution when it is present. Villagers along the gulf coast of Thailand use several hunting techniques to capture and kill shorebirds for sale in markets as food (see Nabhitabhata and Somrang 1986 for discussion), and the efficiency of these methods is indiscriminately eliminating wader populations in the area. Local people at Khao Sam Roi Yot hunt wildlife throughout the area (Scott 1989). *Cambodia* Shorebirds are frequently poisoned and hunted with nets for food in Cambodia (Sun Hean *in litt.* 1997, C. M. Poole *in litt.* 1999); Kaoh Kapik (the only known site for this species in the country) is reportedly heavily hunted for migratory shorebirds using nets and tapes (C. M. Poole *in litt.* 1999). *Vietnam* Intensive hunting is one of the three main threats to shorebirds at Red River delta (Pedersen *et al.* 1998). *Malaysia* The shorebird roost at Tanjung Karang, Selangor, was (and perhaps still is) regularly shot at by hunters (Bakewell 1989).

Increased predation *Russia* The main predator of this species on the Russian breeding grounds is the Carrion Crow *Corvus corone*, which in 1976 destroyed eggs in two out of five Spotted Greenshank nests at Chaivo bay on Sakhalin; the development of towns and

settlements near to the breeding areas has led to an increase in the crow population and hence increased the level of predation (Nechaev 1991).

Disturbance *Russia* Breeding birds are subject to some disturbance by reindeer breeders and herdsmen with dogs, fishermen and tourists (Nechaev 1984). *Mainland China* On the eastern coast of Chongming Dao island in Shanghai, eel fry collectors disturb the birds and their habitat, which has caused the wintering populations of swans and cranes almost to disappear and the numbers of ducks and shorebirds to decline rapidly, although the over-harvesting of benthos and a resulting food shortage for birds could be another reason for the reduction in shorebird numbers (Kong Yi *et al.* 1999). About 10,000 tons of reeds are harvested from eastern Chongming Dao island annually, which is destroying the natural barrier between people inside the sea wall and shorebirds on the mudflats (Kong Yi *et al.* 1999). At the Yellow River delta, oil drilling and fishing activities cause disturbance to feeding and roosting birds on the mudflats, and during a survey in April–May 1998, a total of 903 people (including 60 oil workers) were recorded on the Yellow River Delta National Nature Reserve mudflats (Zhu Shuyu *et al.* 1999). At Wuhaozhuang (outside the nature reserve), there were 1,030 people collecting shellfish and fish fry, 84 vehicles and 159 fishing boats (Zhu Shuyu *et al.* 1999). At Dongzhaigang Nature Reserve on Hainan, there was major disturbance to birds on the mudflats from tourists and shellfish collectors in 1992 (SC). *Hong Kong* Since the 1980s, fishermen from mainland China have been collecting mudskippers on the mudflats of Inner Deep Bay, and some fishermen have been seen to catch birds and sell them to local villagers (SC). In the late 1980s many lines of fishnets were illegally set in the bay, causing major disturbance to waterbirds, but following the intervention of the Hong Kong government this activity ceased, although fishermen still visit the tidal flats (SC). *Thailand* At Pattani bay and Ko Libong, shorebird feeding areas are disturbed by fishermen and collectors of bivalves, anemones, sea cucumbers and crabs (Swennen *et al.* 1986, Scott 1989, Everaarts *et al.* 1994). Boats from outside Pattani frequently enter the bay in order to fish with push-nets, which disturbs the sea-bed and is opposed by local people as it reduces the long-term productivity of the area (Scott 1989). *Vietnam* Disturbance by collectors of marine products is one of the three main threats to shorebirds at the Red River delta (Pedersen *et al.* 1998).

Pollution *Korea* Mudflats are also being degraded by sewage output from contaminated rivers near to large cities in South Korea (Lee Woo-shin *in litt.* 1998). *Mainland China* At the Yellow River delta, pesticides, oil and sewage pollution have adversely affected the wetland ecosystem, oil leaks directly result in the death of plants and the benthos, and plastic bags and other litter are also threats to the ecosystem (Zhu Shuyu *et al.* 1999). There is serious water pollution from industrial or domestic sewage at many locations in coastal China (SC). *Hong Kong* There is a serious pollution problem linked to the rapid development of Shenzhen and Hong Kong around the Inner Deep Bay area, as 90% of untreated sewage from Shenzhen is directly released and water treatment plants will not be available for the next 10 years (and even then only 50% of sewage will be treated) (C. Ma *in litt.* 2000). The water quality of Inner Deep Bay has declined sharply because of this uncontrolled input of industrial effluent and domestic sewage from Shenzhen, and in summer 1996 the dissolved oxygen content there dropped to almost 0%, and there were indications that the numbers of mudskippers, crabs, worms were declining (C. Ma *in litt.* 2000). *Thailand* Intertidal areas at Pattani bay and Ko Libong are being polluted by heavy metals and chlorinated hydrocarbons, mostly as a direct result of local industrial activities, the run-off of agricultural chemicals and the indiscriminate dumping of waste around villages (Scott 1989).

MEASURES TAKEN *Legislation* This species is included in the Russian Red Data Book (Kolosov 1983), and is in the Appendix to the Soviet-Japanese Convention on the Conservation of Migratory Birds (Yu. A. Nazarov *in litt.* 1997). In Japan it was designated as a Special Bird in 1972 (Environment Agency of Japan 1976), and it has been protected as

a National Endangered Species since 1993. It is also 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). In South Korea it is designated as an endangered species by the Ministry of the Environment (SC). It is a Nationally Protected Species (Second Class) in China (Conservation Division, Ministry of Forestry of China 1994). In Thailand, the species is protected under WARPA, and it is also a protected species in Myanmar. It is listed on Appendix I of CITES.

Protected areas and habitat management *Russia* Sanctuaries have been established in northern Sakhalin, along the coasts and islands of Nabilski and in Dagi and Piltun bays, and this species is also afforded some protection on Kamchatka in the Kronotsk Reserve and in a sanctuary on the Moroshechnaya river (Nechaev 1991). *Japan* It has occurred in or near to several protected areas on migration, including: Hamatonbetsu Kutcharo-ko and Furen-ko on Hokkaido and Manko on Okinawa, which are established National Wildlife Protection Areas; and Shiokawa in Aichi prefecture and Ariake-kai in Fukuoka and Saga prefectures, which were being designated as National Wildlife Protection Areas during 1999 (Environment Agency of Japan *in litt.* 1999). Tidal flat reclamation has also slowed down after the controversial Isahaya sea wall was finished in 1997, for example a proposed landfill at Fujimae tidal flat was abandoned in early 1999, and the citizens of Tokushima City voted to abandon of a dyke project at Yoshino-gawa (SC). *Korea* The equivalent section under Spoon-billed Sandpiper contains details of measures being taken in South Korea. *Mainland China* The species has occurred on migration in several protected areas, including the Yellow River Delta Nature Reserve in Shandong, Yancheng Nature Reserve in Jiangsu, Dongzhaigang Nature Reserve on Hainan and Chongming Dongtan Nature Reserve (the eastern coast of Chongming Dao island) in Shanghai, and it probably occurs in Futian Nature Reserve in Guangdong (see Distribution; also MacKinnon *et al.* 1996). *Hong Kong* Inner Deep Bay has been designated as a restricted area since the mid-1970s and managed as a nature reserve since the mid-1980s (see equivalent section under Spoon-billed Sandpiper). *Bangladesh* The Bangladesh islands in Noakhali district were apparently being planted with mangroves to stabilise them with a view to perpetuating wintering habitat for the Spoon-billed Sandpiper (Anon. 1989d). Mangrove planting has the apparent added advantage of improving the quality of mudflats associated with it (Anon. 1989d). *Thailand* The Ko Libong wintering site in Thailand is protected within a Non-Hunting Area (Scott 1989). *Cambodia* Much of Kaoh Kapik falls within the Peam Krasop Wildlife Sanctuary, a proposed Ramsar site (Sun Hean *in litt.* 1997) (but see Threats). *Vietnam* Xuan Thuy Nature Reserve (for description see Measures Taken under Black-faced Spoonbill) has been established as a Ramsar site and nationally recognised protected area (Nguyen Cu *in litt.* 1997, Pedersen *et al.* 1998). *Malaysia* Details of measures taken to protect the coastal wetlands of Peninsular Malaysia are in the equivalent section under Milky Stork and Lesser Adjutant.

International cooperation The East Asian-Australian Shorebird Reserve Network was launched in 1996, with the aim of promoting the conservation of shorebirds at key sites; by December 1999, there were 25 shorebird sites in eight countries in the network, including the following reserves that are known to be important to this species: Moroshechnaya estuary (Russia), Yoshino-gawa (Japan), Tongjin estuary (South Korea), Yellow River Delta, Yancheng and Chongming Dongtan (Mainland China) and Mai Po–Inner Deep Bay (Hong Kong) (SC).

MEASURES PROPOSED **Legislation** Nechaev (1989) proposed that the hunting of all species of shorebirds should be prohibited within the breeding range of Spotted Greenshank.

Protected areas and habitat management The effective protection and management of coastal wetlands in both the breeding and non-breeding ranges is vital for the conservation of this species. Some specific recommendations are given below by country. *Russia* In its

breeding grounds, it is necessary to protect territories in permanent and seasonal (i.e. summer wildlife refuges) sanctuaries, where its population should be monitored (Nechaev 1991, V. A. Nechaev *in litt.* 1997, AVA). As a minimum, a sanctuary should be set up in Konstantin bay in Khabarovsk, there should be strict regulation of the exploitation of natural resources in areas where the species breeds, and reindeer herding should be moved temporarily elsewhere (during the period when the chicks are developing) at all breeding localities (B. A. Voronov *in litt.* 1997). *Korea* There is an urgent need to address the many pressures on coastal wetlands in South Korea, principally from reclamation and other development (see equivalent section under Baikal Teal *Anas formosa* and Spoon-billed Sandpiper). *Mainland China* At the Yellow River Delta Nature Reserve, Zhu Shuyu *et al.* (1999) made the following recommendations for the conservation of the tidal flats (many of which would be applicable to other wetland reserves in mainland China): enhance reserve management through more effective enforcement of relevant laws and regulations; enhance public awareness and education to make local people more conscious of the value of the nature reserve and involve them in its conservation; prohibit fishery activities during the migratory periods on those mudflats which are important for birds (when it would be necessary to find alternative occupations for local people); strengthen communication and cooperation with the Shengli Oil Field to promote the conservation of shorebirds and their habitats; improve resource inventory and basic scientific research in the nature reserve, especially the survey and monitoring of rare species; make recommendations to decision-makers concerning the wise use of natural resources based on scientific research. *Bangladesh* Appropriate protection of this species from hunting, disturbance and habitat alteration should be focused on the Padma-Meghna delta islands, where the largest-ever winter count was made in the late 1980s. *Thailand* Given the rapid pace of development in the peninsular Thailand, effective legislative protection is required as rapidly as possible for as many areas as possible, not only to help to protect the waders of the area but also the nursery grounds for fish and prawn species which are so commercially valuable to the country as a whole (Parish 1984). The area of mudflats and mangroves near Krabi should be incorporated within Hat Nopparat Tara National Park and protected from disturbance, overexploitation and habitat destruction (Parr 1988). Conservation action at Khao Sam Roi Yot National Park in Thailand should be targeted at formulating and enacting a realistic plan that incorporates ecological management with the needs of local people (Parr *et al.* 1993b). Areas of Pattani bay should be set aside as a conservation area, perhaps in conjunction with the adjacent Prince of Songkla University which could manage the area as a biological research station (Swennen *et al.* 1986). Nabhitabhata and Somrang (1986) advocated the declaration of selected coastal sites as non-hunting areas that are patrolled to prevent illegal hunting, and also suggested that improved information is required, perhaps in the form of booklets distributed to local people, to inform villagers of legislation protecting wild birds in the country. The Wildlife Conservation Division is responsible for publicising existing legislation, and this should be conducted more comprehensively with a view to informing villagers, police and government officials that most wetland birds are protected by law (Scott 1989). *Cambodia* The Kaoh Kapik site in Cambodia was thought to be one of the best surviving representatives of coastal mudflats, and coastal *Melaleuca* mangroves forests in the Gulf of Thailand (Edwards 1996), until the mangroves were virtually clear-felled in 1998 (C. M. Poole *in litt.* 1999; see Threats). Efforts should be made to protect the remaining habitat and wildlife in this area. *Vietnam* Establishment and proper management of Red River delta reserves is required (Nguyen Cu *in litt.* 1997). In particular, Xuan Thuy Nature Reserve requires more effective management and a reserve is required at the Cua Day estuary (Pedersen *et al.* 1998, which see for a fuller discussion, and equivalent section under Black-faced Spoonbill). *Malaysia* For details of measures proposed for the conservation of the coastal wetlands of Peninsular Malaysia, see the equivalent section under Milky Stork and Lesser Adjutant.

Research Early summer surveys to try to locate more breeding sites of this species are required in potentially suitable habitats to the south-west of Okhotsk and between the Ul'beya river and Cape Onatsevich (AVA). Research into the status and conservation requirements of species utilising habitats in the Irrawaddy Delta (which could be an important wintering area for this species) is an urgent priority. More work is needed simply to clarify the ecological niche of this species, particularly with reference to Common Greenshank, with a view to the better management of its flyway stop-over sites. Moreover, clarification of its migration routes and wintering grounds is urgently needed, and a programme of colour-marking birds, and eventually of satellite-tracking them, would be very welcome.

REMARKS (1) This species is very similar to the much more abundant and widespread Common Greenshank *Tringa nebularia*, and the separation of the two species in the field was only clarified in the mid-1980s by Kennerley and Bakewell (1986) and Howes and Lambert (1987). It is likely that some of the sight records in the Distribution section, particularly before the mid-1980s, involve misidentifications; conversely, it is certainly possible that this species is greatly under-recorded in its non-breeding range because of the difficulty in picking it out amongst other similar, and much more numerous, shorebirds. (2) Baker (1926–1935) reported that this species nested at Hram-tso in Tibet in 1910, and commented that it was “certainly a casual breeder in that country”, but this record was almost certainly based on a misidentification. (3) It is not entirely clear whether any records of this species should be allowed for India, as Baker’s (1933) seem no less anecdotal than his rejected breeding record for Tibet (see Remarks 2 above, and Remarks 2 under Grey-crowned Prinia *Prinia cinereocapilla*).