

# Threatened Birds of Asia:

## The BirdLife International Red Data Book

Editors

N. J. COLLAR (Editor-in-chief),  
A. V. ANDREEV, S. CHAN, M. J. CROSBY, S. SUBRAMANYA and J. A. TOBIAS

Maps by

RUDYANTO and M. J. CROSBY

Principal compilers and data contributors

■ **BANGLADESH** P. Thompson ■ **BHUTAN** R. Pradhan; C. Inskipp, T. Inskipp ■ **CAMBODIA** Sun Huan; C. M. Poole ■ **CHINA** ■ **MAINLAND CHINA** Zheng Guangmei; Ding Changqing, Gao Wei, Gao Yuren, Li Fulai, Liu Naifa, Ma Zhijun, the late Tan Yaokuang, Wang Qishan, Xu Weishu, Yang Lan, Yu Zhiwei, Zhang Zhengwang. ■ **HONG KONG** Hong Kong Bird Watching Society (BirdLife Affiliate); H. F. Cheung; F. N. Y. Lock, C. K. W. Ma, Y. T. Yu. ■ **TAIWAN** Wild Bird Federation of Taiwan (BirdLife Partner); L. Liu Severinghaus; Chang Chin-lung, Chiang Ming-liang, Fang Woei-horng, Ho Yi-hsian, Hwang Kwang-yin, Lin Wei-yuan, Lin Wen-horn, Lo Hung-ren, Sha Chian-chung, Yau Cheng-teh. ■ **INDIA** Bombay Natural History Society (BirdLife Partner Designate) and Sálím Ali Centre for Ornithology and Natural History; L. Vijayan and V. S. Vijayan; S. Balachandran, R. Bhargava, P. C. Bhattacharjee, S. Bhupathy, A. Chaudhury, P. Gole, S. A. Hussain, R. Kaul, U. Lachungpa, R. Naroji, S. Pandey, A. Pittie, V. Prakash, A. Rahmani, P. Saikia, R. Sankaran, P. Singh, R. Sugathan, Zafar-ul Islam ■ **INDONESIA** BirdLife International Indonesia Country Programme; Ria Saryanthi; D. Agista, S. van Balen, Y. Cahyadin, R. F. A. Grimmett, F. R. Lambert, M. Poulsen, Rudyanto, I. Setiawan, C. Trainor ■ **JAPAN** Wild Bird Society of Japan (BirdLife Partner); Y. Fujimaki; Y. Kanai, H. Morioka, K. Ono, H. Uchida, M. Ueta, N. Yanagisawa ■ **KOREA** ■ **NORTH KOREA** Pak U-il; Chong Jong-ryol, Rim Chuyon. ■ **SOUTH KOREA** Lee Woo-shin; Han Sang-hoon, Kim Jin-han, Lee Ki-sup, Park Jin-young ■ **LAOS** K. Khounbolin; W. J. Duckworth ■ **MALAYSIA** Malaysian Nature Society (BirdLife Partner); K. Kumar; G. Noramly, M. J. Kohler ■ **MONGOLIA** D. Batdelger; A. Bräunlich, N. Tseveenmyadag ■ **MYANMAR** Khin Ma Ma Thwin ■ **NEPAL** Bird Conservation Nepal (BirdLife Affiliate); H. S. Baral; C. Inskipp, T. P. Inskipp ■ **PAKISTAN** Ornithological Society of Pakistan (BirdLife Affiliate) ■ **PHILIPPINES** Haribon Foundation for Conservation of Natural Resources (BirdLife Partner); N. A. D. Mallari, B. R. Tabaranza, Jr. ■ **RUSSIA** Russian Bird Conservation Union (BirdLife Partner Designate); A. V. Andreev; A. G. Degtyarev, V. G. Degtyarev, V. A. Dugintsov, N. N. Gerasimov, Yu. N. Gerasimov, N. I. Germogenov, O. A. Goroshko, A. V. Kondrat'ev, Yu. V. Labutin, N. M. Litvinenko, Yu. N. Nazarov, V. A. Nechaev, V. I. Perfil'ev, R. V. Ryabtsev, Yu. V. Shibaev, S. G. Surmach, E. E. Tkachenko, O. P. Val'chuk, B. A. Voronov. ■ **SINGAPORE** The Nature Society (Singapore) (BirdLife Partner); Lim Kim Seng ■ **SRI LANKA** Field Ornithology Group of Sri Lanka (BirdLife Affiliate); S. Kotagama; S. Aryaprema, S. Corea, J. P. G. Jones, U. Fernando, R. Perera, M. Siriwardhane, K. Weerakoon ■ **THAILAND** Bird Conservation Society of Thailand (BirdLife Partner); U. Treesucon; R. Jugmongkol, V. Kongthong, P. Poonswad, P. D. Round, S. Supparatvirkorn ■ **VIETNAM** BirdLife International Vietnam Country Programme; Nguyen Cu; J. C. Eames, A. W. Tordoff, Le Trong Trai, Nguyen Duc Tu.

With contributions from: S. H. M. Butchart, D. S. Butler (maps), P. Davidson, J. C. Lowen, G. C. L. Dutson, N. B. Peet, T. Vetta (maps), J. M. Villasper (maps), M. G. Wilson

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Wellbrook Court, Girton Road, Cambridge, CB3 0NA, United Kingdom

Tel: +44 1223 277318 Fax: +44 1223 277200 Email: [birdlife@birdlife.org.uk](mailto:birdlife@birdlife.org.uk)

Internet: [www.birdlife.net](http://www.birdlife.net)

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## LESSER KESTREL

### *Falco naumanni*

Critical  —

Endangered  —

Vulnerable  A1b,c,e; A2b,c,e



*This species has undergone rapid declines in western Europe, equivalent to c.46% in each 10 years since 1950, on its wintering grounds in South Africa, equivalent to c.25% in each 10 years since 1971, and possibly in parts of its Asian range. If these declines are representative of populations in all regions, the total population is likely to have declined by more than 20% in 10 years, which qualifies the species as Vulnerable. It is predicted that similar declines will continue over the next 10 years.*

**DISTRIBUTION** The Lesser Kestrel (see Remarks 1) is an extremely widespread Old World falcon, breeding from Iberia and North Africa through Central Asia to eastern China, and wintering chiefly in sub-Saharan Africa. The following account deals primarily with its range in Asia, while information from elsewhere is summarised.

**Outside the Asian region** It breeds over a huge range in Morocco, Algeria, Tunisia, Libya, Portugal, Spain, Gibraltar, France, Italy, Croatia, Bosnia-Herzegovina, Yugoslavia, Macedonia, Albania, Bulgaria, Romania, Greece, Turkey, Israel, Jordan, Iran, Iraq, Armenia, Azerbaijan, Georgia, Russia, Moldova, Ukraine, Afghanistan, Uzbekistan and Kazakhstan, and birds winter in southern Spain, southern Turkey and southern Arabia and across much of Africa except the Saharan regions, particularly South Africa (Biber 1996).

**Asian region** Breeding occurs through western and northern China, east to Inner Mongolia and Beijing, marginally in Russia near the Mongolian border and more generally in western and central Mongolia. The species largely vacates the region in winter, and is then rare at most (in Nepal, India and the Maldives), although it formerly wintered in numbers in Laos. It occurs south of the breeding range as a migrant, and as a vagrant as far east as Japan. It is listed as a winter visitor throughout Bangladesh by Rashid (1967), presumably hypothetically (see Remarks 2 under Manipur Bush-quail *Perdicula manipurensis*); a record of one at Faridpur, December, 1968–1974, or 1979–1982 (Sarker and Sarker 1985b) is treated here as provisional. There is therefore no confirmed record from the country (Grimmett *et al.* 1998), although the species is likely to occur as a rare passage migrant.

■ **RUSSIA** The species has been recorded in the extreme south of eastern Russia, near the Mongolian border, with records as follows:

■ **Krasnoyarsk** near **Krasnoyarsk**, on the Minusinsk and Abakan steppes, undated (Dement'ev and Gladkov 1951–1954); near **Uzhur**, north of the Chulym river, breeding in the forest steppe but relatively rare, undated (Rogacheva 1992); along the Yenisey valley in what is now the **Krasnoyarskoye reservoir**, between the Sayan foothills and Krasnoyarsk, “occurred rarely”, undated (Rogacheva 1992); lower **Tuba river**, Yenisey valley, breeding, undated (Rogacheva 1992); **Us depression**, only a few records and perhaps not nesting, undated (Rogacheva 1992);

■ **Buryatia Kyakhta** (Kjachta), male collected, May 1908 (Lönningberg 1909; also Skalon 1936 in Dement'ev and Gladkov 1951–1954); Dzarguchei (untraced), male collected, May 1908 (Lönningberg 1909).

■ **MONGOLIA** It is a widely distributed and fairly common breeding visitor in Mongolia, becoming rarer in the east of the country (A. Bräunlich *in litt.* 2000). Records are as follows:

■ **Uvs Tesin river**, undated (Fomin and Bold 1991); **Uureg Nuur**, undated (Fomin and Bold

1991); ■ **Bayan-Ölgii Achit Nuur** lake, undated (Fomin and Bold 1991); ■ **Khovd Erdenebüren**, male collected, July 1964 (Piechocki 1968); **Chono Kharaiikh river** (Conocharajch-gol), two pairs nesting, June 1974, 1975, June 1978 (Piechocki *et al.* 1981); **Khovd** (Chovd, Kobdo), flock of at least 100, July 1964 (Piechocki 1968), 13 circling above the town, June 1974 (Piechocki *et al.* 1981); **Khar Us Nuur** lake, five, July–August 1992 (C. Bealey *in litt.* 1999), one pair on cliffs west of the lake, presumably breeding, May 1995, up to eight males and two females south-west of the lake, presumably from a nearby colony, May–June 1995 (A. Bräunlich *in litt.* 2000); **Tugreg-Gol** (Cencher-gol) river, female collected, June 1964 (Piechocki 1968); between Khovd and **Dzereg** (Zereg), “a few”, June 1978 (Piechocki *et al.* 1981); **Mönkhkhairkhan** (Munkhkhairkhan) mountain, undated (Fomin and Bold 1991); **Uliastayn Gol** (Uljastajngol) river, male collected, July 1964 (Piechocki 1968); **Bulgan Gol** (Bulugun river), end of April 1974, breeding (Piechocki *et al.* 1981); ■ **Dzavkhan Dzavkhan river** (Zavchan river) near Jargalan, female collected, June 1964 (Piechocki 1968; also Fomin and Bold 1991); ■ **Gov'-Altai Aj Bogd Uul** (Arc-bogd-ul), male and two females collected at a small breeding colony, May 1962 (Piechocki 1968); Nur-mogoj (untraced), male collected, June 1964 (Piechocki 1968); ■ **Khövsgöl Hövsgöl lake**, undated (Fomin and Bold 1991); **Selenge river**, undated (Fomin and Bold 1991); ■ **Bayankhongor** near **Bayankhongor**, male seen, April 1974 (Piechocki *et al.* 1981); **Baydrag Gol** (Bajdragiin-gol) river, several flocks of 5–20 birds, September 1966 (Mauersberger 1979); **Ih Bogd Uul** (Ich-bogd-ul), June 1962 (Piechocki 1968, also Fomin and Bold 1991); **Tsagaan Bogd Uul** (Cagan-bogd-ul), June 1962 (Piechocki 1968); ■ **Bulgan Un't** (Unt Somon), male collected, August 1964 (Piechocki 1968); Dasineilen (untraced), female collected, August 1964 (Piechocki 1968); ■ **Övörkhangai Erdene-Dzuu** (Erdene Zuu) monastery, Karakorum, one, July 1998 (Dubois and Moutou 1998); **Khujirt** (Khudjirt), one seen, June 1980 (Mauersberger *et al.* 1982); Shant Hiid (Shant monastery) (untraced), one pair, June 1996 (A. Bräunlich *in litt.* 2000); ■ **Selenge** Bura river, near **Sühbaatar** (Troitzkosawsk), one collected (undated) (Kozlova 1932); ■ **Töv** on railway journeys from 47°N northwards to Ulaanbaatar, with a total of 61 counted on 48 journeys between 1984 and 1994 (P. S. Kerr-Smilely *in litt.* 1999; see Remarks 1); near **Bornuur**, western Khentii mountains, c.25 pairs nesting, June 1965, also recorded May–August 1966 (Kleinstäuber and Succow 1978); **Haraa Gol** (Khara river), three collected, May c.1926 (Kozlova 1932); **Terelja** (Terelj), Turtle Rock, one, June 1980 (Mauersberger *et al.* 1982), pair breeding, 1984, 1985 and 1987 (Kerr-Smilely 1997–1998); **Ulaanbaatar** (Ulan-Bator), two, August 1984, one, March 1985, two, July 1985, six seen, August 1989, two seen, September 1990, two, March 1991 (P. S. Kerr-Smilely *in litt.* 1999), 12 between Karakorum and Ulaanbaatar, July 1998 (Dubois and Moutou 1998); **Lung Somon** (Lun-Somon), three females collected, June 1964 (Piechocki 1968); **Tola bridge**, between Tereldsh and Ulaanbaatar, male, June 1989 (Stephan 1994); 80 km east of **Öndörshireet** (Under-Schiret), male, April 1977 (Stephan 1994); near **Önjüül** (Onjuul), “known to be common”, undated (Kerr-Smilely 1997–1998); Tsakha mountains (untraced), near the Tola river, west of Ulaanbaatar, one collected, July c.1926, breeding (Kozlova 1932); ■ **Dundgov' Ikh Gadzryn Chuluu** (Ikh Gazaryn chuluu), two birds, 1990s (A. Bräunlich *in litt.* 2000); between **Lus** and **Chuld**, male seen, April 1977 (Stephan 1994); ■ **Ömnögov' Bulgan**, male collected, May 1962 (Piechocki 1968); **Yolyn Am** (Jolyn-am), now in Gobi Gurvan Saichan National Park, up to two seen, June 1979, male seen, June 1980 (Mauersberger *et al.* 1982), one seen, May 1986 (Stephan 1988); **Gurbun-saykhan mountains** (Gurban-sajchan-ul), now in Gobi Gurvan Saichan National Park, two males and a female collected at a small breeding colony, May 1962 (Piechocki 1968), breeding pair, May 1976 (Mauersberger 1979); near **Dalan Dzadagad** (Dalandzadgad), eight seen at the airport and breeding suspected, July 1998 (Dubois and Moutou 1998), 60 seen at roost in poplars the “Gobi tourist camp”, August 1998 (H.-J. Fünfstück *per A.* Bräunlich *in litt.* 2000); **Tsetsiy Uul** (Cecij-ul), pair collected at a small breeding colony, May 1962 (Piechocki 1968); **Hörh Uul** (Church-ul), male collected at a small breeding colony, May 1962 (Piechocki 1968); unspecified locality, male collected, May 1962 (Piechocki 1968); *Khentii*

**Tümentsogt** Somon, undated (Batdelger 1994); ■ **Dornogov'** unspecified localities, from 44°N to 47°N, where a total of 2,554 were counted on 48 train journeys between 1984 and 1994, with a maximum count of 542 in August 1988 (P. S. Kerr-Smiley *in litt.* 1999; see Remarks 1); ■ **Dornod Uldz river** (Ulz river), undated (Fomin and Bold 1991); **Ugtam Natural Reserve**, 10 birds, presumably breeding, June 1998 (A. Bräunlich *in litt.* 2000); **Onon river**, undated (Fomin and Bold 1991); *province unknown* Chajljas-nechol (untraced), eastern Chalcha, seen in the elm forest, undated (Dement'ev and Naumov 1966 in Piechocki 1968); Eren valley (untraced), eastern Chalcha, undated (Dement'ev and Naumov 1966 in Piechocki 1968); Ulaan-uul (untraced), 1–2 pairs breeding, June 1974, 1975 and 1978 (Piechocki *et al.* 1981); Khangay region (not mapped), the Bajan-ovoo–Jargalant–Khorgo–Bulgan–Erdenet route, seen, August 1993 (Kováts *et al.* undated).

**JAPAN** This species is a vagrant, with records (by island and prefecture) as follows:

**Honshu** ■ **Fukushima** unspecified localities, undated (OSJ 2000); ■ **Aichi** unspecified localities, undated (OSJ 2000);

**Kyushu** (and associated islands) ■ **Nagasaki Tsushima** island, April 1977 (Morioka *et al.* 1978 in Brazil 1991);

**Iriomote-jima** island, female, March 1984 (McWhirter *et al.* 1996).

**CHINA** The Lesser Kestrel breeds in the steppes and deserts of Inner Mongolia, Xinjiang, Hebei and Beijing (at least formerly), and presumably also in Gansu, and is a passage migrant through several other provinces. Records are as follows:

■ **Jilin Changling county**, August 1983 (Liu Mingyu *et al.* 1988); **Antu county**, October 1984 (Liu Mingyu *et al.* 1988);

■ **Liaoning Suizhong county**, October 1983 (Liu Mingyu *et al.* 1988); **Lüshun**, September 1965 (Liu Mingyu *et al.* 1988);

■ **Inner Mongolia** on railway journeys through Inner Mongolia, from Jining (Chining) northwards to 44°N, total of 75 counted on 48 journeys between 1984 and 1994 (P. S. Kerr-Smiley *in litt.* 1999); **Hulun Buir league**, undated (Yang Guisheng and Xing Lianlian 1998); **Dayingzi** (Ta ying ze), near Linxi (Linn si hien), two collected, May 1924 (Seys and Licent 1933); **Jirem league**, undated (Yang Guisheng and Xing Lianlian 1998); **Chifeng city**, undated (Yang Guisheng and Xing Lianlian 1998); **Haliut**, June 1964 (specimen in ASCN); **Ulanqab league**, undated (Yang Guisheng and Xing Lianlian 1998); **Ulansuhai Nur**, June 1964 (specimen in ASCN); **Bayannur league**, undated (Yang Guisheng and Xing Lianlian 1998); **Baotou city**, undated (Yang Guisheng and Xing Lianlian 1998); **Ih Ju league**, undated (Yang Guisheng and Xing Lianlian 1998); **Alxa league**, undated (Yang Guisheng and Xing Lianlian 1998);

■ **Xinjiang** western Tien Shan, Tarim river and Altay region, summer visitor (Yuan Guoying 1991): **Hom Hanas Mongolzu Xiang** (Hanas Hu), 19, August 1989 (Dissing *et al.* 1990); between Burqin and **Chardingjy**, three, August 1989 (Dissing *et al.* 1990); between **Altay** and Burqin, 81, August 1989 (Dissing *et al.* 1990); **Burqin** to Ulungur Hu, seven seen, July 1995 (Hornskov 1995b); **Ulungur Hu**, one, August 1989 (Dissing *et al.* 1990), up to three, June 1995 (Hornskov 1995b); **Fuyun county**, July 1960 (two specimens in ASCN); **Tacheng county**, one collected (July) and observed breeding, May–July 1987 (Xu Kefen 1992); **Sayram Hu**, up to eight, June 1995 (Hornskov 1995b); **Mori**, male, July 1999 (Dornbusch and Dornbusch 1999); **Xinyuan** to Ili, four, June 1995 (Hornskov 1995b);

■ **Gansu Langchaigou**, Anxi, May 1988 (male in LAUCN); **Anxi Gobi Nature Reserve**, Anxi county, undated (Liu Donglai *et al.* 1996);

■ **Sichuan Baihe Nature Reserve**, Nanping county, 1978 and 1979 (Shi Dongchou *et al.* 1984), and listed for Nanping by Li Guiyuan (1995); **Jintang county**, undated (Li Guiyuan 1995); between Dayandong and **Leibo**, one, April 1997 (Dowell *et al.* 1997);

■ **Yunnan Yangjie**, Xundian county, March 1975 (male in KIZCN);

■ **Hebei Donghuayuan**, October 1962 (specimen in ASCN); **Beidaihe** (Pei-tai-ho beach), April 1943 (Hemmingsen and Guildal 1968), total of 108 “bird-days” (108 birds seen, some of which may have been the same individuals on different days), August–November 1986, 14, September–October 1987, 20, September–October 1988, two, October–November 1989, five, October 1990 (Williams *et al.* 1992), “uncommon to fairly common in mid-autumn” (Beidaihe Bird Society 1992); **Changli**, May 1953 (specimen in ASCN); **Laiyuan county**, August 1934 (specimen in ASCN); **Shijiu Island** (“Happy Island”), one seen, September 1996 (Gertholtz and Knoll 1996); **Xingtai** (Shuntehfu, Chounn té fou), Tcheuly plain, one collected, April 1918 (Seys and Licent 1933); Tch’en kia fenn (untraced), near Xian Xian (Sien hien), Tcheuly plain, one collected, April 1917 (Seys and Licent 1933);

■ **Tianjin Tianjin** (Tientsin), adult female collected, undated (Hartlaub 1893);

■ **Beijing** near **Beijing**, breeding, and assembling in “large numbers” in September, in the “Western hills of Pekin” (Swinhoe 1871), male collected at “Paoting-fu”, April 1919, recorded twice in the mountains south-west of Beijing, January 1926 (G. D. Wilder and H. W. Hubbard in Hemmingsen and Guildal 1968), one in the western hills, March (unspecified year) (G. D. Wilder and H. W. Hubbard 1938 in Hemmingsen and Guildal 1968), April 1961 (specimen in ASCN), male, May 1984 (J. Fritzhand *in litt.* 1999), pair seen between Beijing and the Great Wall and Ming Tombs, May 1984 (Ornitholidays 1984);

■ **Henan Hwei-Hsien**, autumn (Fu Tung-sheng 1937); Taihangshan Macaque Nature Reserve, **Jiaozuo city** and Xinyang city, passage migrant (Qu Wenyuan and Song Chaoshu 1996b); **Kaifeng county** (Kai-Feng), spring (unspecified years) (Fu Tung-sheng 1937).

■ **PAKISTAN** The species is a vagrant (Grimmett *et al.* 1998), although perhaps likely to occur more frequently than the few records suggest, given that migrating birds are fairly regularly seen in Iran, Afghanistan and India (Roberts 1991–1992): ■ **North West Frontier Province Gilgit**, undated, but presumably historical (female in BMNH); **Ayubia National Park**, Hazara, 26 km north of Murree, one, June 1990 (Dissing *et al.* 1990); **Dera Ismail Khan district**, male, October 1997 (Kylänpää 2000); ■ **Baluchistan Chiltan mountains**, three, March 1996 (Pyhälä 1997).

■ **INDIA** Although records are widely spread, this species is now a rare winter visitor and passage migrant, occasionally in large flocks (Grimmett *et al.* 1998). Records are as follows:

■ **Himachal Pradesh Manalsu**, four, April 1981 (Gaston *et al.* 1981a); McLeodganj, near **Dharmasala**, two, November 1988 (Bose *et al.* 1989); Miyar valley, near **Pong Dam lake**, December 1985 (Gaston 1985b);

■ **Haryana Ambala**, one, undated (Hume 1869–1870; also Ali and Ripley 1968–1998); Kalesar Wildlife Sanctuary (not mapped), 1993–1995 (Kalsi 1998a);

■ **Delhi Delhi**, one shot, nineteenth century (Hume 1869–1870, Ticehurst 1933);

■ **Rajasthan Keoladeo National Park**, Bharatpur, two, February 1987 (Holman 1987, Turin *et al.* 1987); **Jaisalmer**, two, February 1987 (Turin *et al.* 1987);

■ **Uttar Pradesh** near **Naini Tal**, c.1985 and February 1986 (Anon. 1985, 1986, I. Lewis *in litt.* 1999); **Lucknow**, undated (Anderson 1875), and one before 1881 (Reid 1881, Jesse 1902–1903);

■ **Madhya Pradesh** between **Sailana** and Dohad, June–October c.1989 (Anon. 1990c);

■ **Maharashtra Melghat Sanctuary** (Tiger Reserve), listed, undated (Anon. 1990d, 1993a); **Dhule**, apparently wintering, undated (Vyawahare 1991); Jaikwadi dam, **Paithan**, Aurangabad, listed, undated (Vyawahare and Kulkarni 1986); near **Ahmednagar**, a flock of perhaps two dozen, January 1861 (Fairbank 1876) and Nagar, in flocks, undated (E. A. Butler 1881); **Bhimashankar**, unspecified date in April–June 1994 (Gole 1994); **Pune**, unspecified date in April–June 1994 (Gole 1994); **Mahabaleshwar**, at Genna Falls and Arthur’s Seat, in mid-May and thought (presumably erroneously) to be breeding, undated (Davidson and Wenden

1878); **Solapur** district, “several hundreds roosting on about twenty big trees near a village”, January, undated (Davidson and Wenden 1878);

■ **Karnataka Belgaum district**, one, undated (MacGregor 1887); near Lakhya dam, **Kudremukh**, 36 roosting in a *Eucalyptus* grove, March 1979 (Chakravarthy and Tejasvi 1992);

■ **Kerala Wynaad district**, 1985–1988 (Zacharias and Gaston 1993); Arukunchi, **Wynaad Wildlife Sanctuary**, December 1991 (Uthaman 1993);

■ **Bihar Dinapur** (Dinapore), male and female, April 1873 (specimen in BMNH, Brooks 1874); **Patna**, female, November 1977 (Inskipp and Inskipp 1977);

■ **Orissa Balasore**, more than 300 in a “large (migratory?) swarm”, January 1950 (Ali and Ripley 1968–1998, male and female in BNHS); **Durgapur**, four, December 1969 (Gauntlett 1986);

■ **West Bengal Dishergharh**, three, December 1969 (Gauntlett 1986); **Calcutta**, four specimens listed for 1841–1848 (Blyth 1849–1852);

■ **Sikkim** unspecified locality (and at this time including much of West Bengal), one female, undated but around 1870s (specimen in BMNH, Baker 1922–1930);

■ **Arunachal Pradesh Naharlagun**, October 1992 (Singh 1994);

■ **Assam Dibrugarh**, six, March, undated (Hume 1888); **Manas National Park**, 1987 (Rahmani *et al.* 1988; also Anon. 1990b); **Kaziranga National Park**, at Sohola, a few, February–March 1994, and at Kathpora, one, April 1995 (Barua and Sharma 1999); **Barak river**, north-east Cachar, five, March 1876 (Hume 1877a), this apparently repeated by Baker (1898–1901) when reporting a “few specimens” from North Cachar, undated; Dibru-Saikhowa National Park (not mapped), one at Dighali pathar, November 1992 (Choudhury 1994, 2000c);

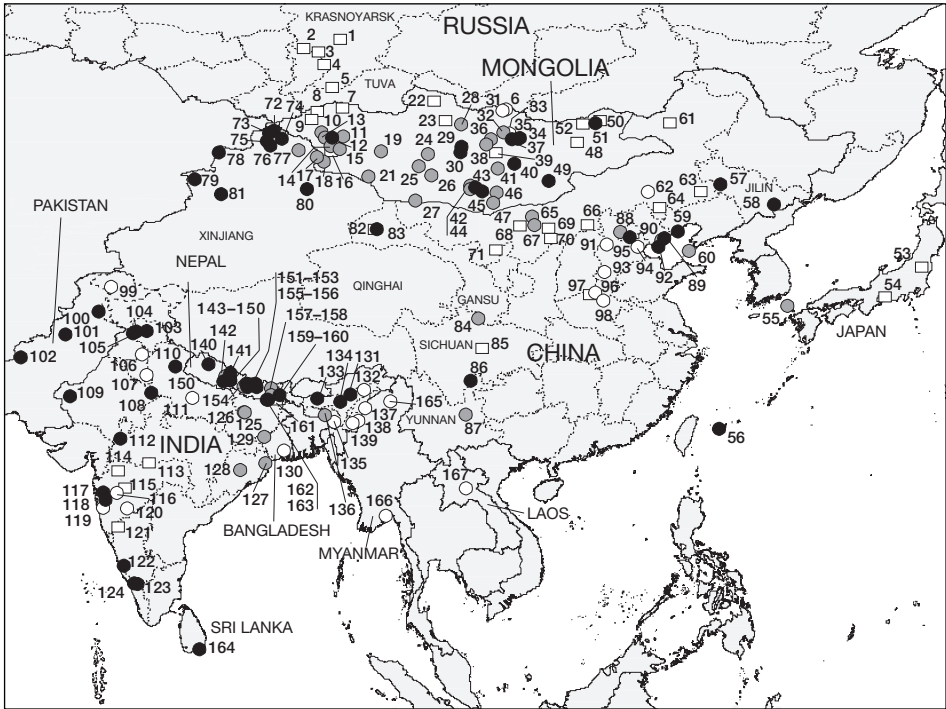
■ **Meghalaya Mawphlang**, Khasia hills, October 1952 (male in UMMZ);

■ **Nagaland Naga hills**, undated (Hume 1888);

■ **Manipur north Manipur hills**, adult, undated (Hume 1888); **Imphal**, March 1946 (male in BNHS).

Unconfirmed records include a female thought to be this species, west of Chandrapur (Chanda), on the Pem Gunga river, undated (Blanford 1869); Dugshai, Jammu and Kashmir, apparently the commoner of the two kestrels, undated (Adams 1867), with further records from Kashmir, summer 1893 (Cordeaux 1894) and Domel, also in Kashmir, near the confluence of the Kishenganga (“Krishna-gunga”) and Jhelum rivers, several, July 1887 (Cordeaux 1888; see Remarks 1), although Ward (1906–1908) listed the Lesser Kestrel as “doubtful” in Kashmir and the identification (of Adams 1867) was considered “almost certainly erroneous” by Ticehurst (1933); Nilgiris, Tamil Nadu, thought to be breeding, undated (Jerdon 1862–1864), although this suspicion was probably unfounded (Baker and Inglis 1930, Ticehurst 1933, Whistler and Kinnear 1931–1937); Coonoor, one apparently collected, undated (Hume 1869–1870) but without sufficient evidence to accept (Whistler and Kinnear 1931–1937; see Remarks 1); Mansingh Deo Wildlife Sanctuary, undated (listed as a common migrant, but basis unclear) (Bhamburkar and Desai 1993).

■ **NEPAL** The species is mainly an uncommon autumn passage migrant, with a few spring and several winter records (Grimmett *et al.* 1998). Occurrences, generally distributed between central and eastern Nepal, are as follows: **Rara Lake National Park**, one, November 1991 (T. R. Giri verbally 1996); **Muktinath**, upper Kali Gandaki valley, one, 3,700 m, February 1982 (Turton and Speight 1982), one, March 1982 (Schofield 1982); **Ghasa** to Dana, upper Kali Gandaki valley, one, January 1974 (Madge *et al.* 1974); **Pothana**, lower Kali Gandaki valley, 1,100 m, undated, and between Pothana and Ghandrung, one, February 1989 (Linderstrom 1989); 3 km from **Birethane**, three, November 1981 (Clements and Bradbear 1981); **Lumle**, two, November 1979 (Woodcock 1979); **Khare**, Kali Gandaki valley, 77 flying west, October–November 1985 (de Roder 1989); near **Baglung**, along the lower Kali Gandaki river, 16, March, year unspecified (R. L. Fleming Jr. 1977); **Suikhet**, two, January 1974 (Madge



**The distribution of Lesser Kestrel *Falco naumanni*:** (1) Krasnoyarsk; (2) Uzhur; (3) Krasnoyarskoye reservoir; (4) Tuba river; (5) Us Depression; (6) Kyakhta; (7) Tesin river; (8) Uureg Nuur; (9) Achit Nuur; (10) Erdenebüren; (11) Chono Kharaiikh river; (12) Khovd; (13) Khar Us Nuur; (14) Tugreg-Gol; (15) Dzereg; (16) Mönkhkhairkhan; (17) Uliastayn Gol; (18) Bulgan Gol; (19) Dzavkhan river; (20) unallocated; (21) Aj Bogd Uul; (22) Hövsngöl lake; (23) Selenge river; (24) Bayankhongor; (25) Baydrag Gol; (26) Ih Bogd Uul; (27) Tsagaan Bogd Uul; (28) Un't; (29) Erdene-Dzuu; (30) Khujirt; (31) Sühbaatar (Troitzkosawsk); (32) Bornuur; (33) Haraa Gol; (34) Terelja; (35) Ulaanbaatar; (36) Lung Somon; (37) Tola bridge; (38) Öndörshireet; (39) Önjүүл; (40) Ikh Gadzyn Chuluu; (41) Lus; (42) Bulgan; (43) Yolyn Am; (44) Gurbun-saykhan mountains; (45) Dalan Dzadagad; (46) Tsetsy Uul; (47) Hörh Uul; (48) Tümentsogt; (49) Dornogov'; (50) Uldz river; (51) Ugtam Nature Reserve; (52) Onon river; (53) Fukushima; (54) Aichi; (55) Tsushima; (56) Iriomote-jima; (57) Changling county; (58) Antu county; (59) Suizhong county; (60) Lüshun; (61) Hulun Buir league; (62) Dayingzi; (63) Jirem league; (64) Chifeng city; (65) Haliut; (66) Ulanqab league; (67) Ulansuhai Nur; (68) Bayannur league; (69) Baotou city; (70) Ih Ju league; (71) Alxa league; (72) Hom Hanas Mongolzu Xiang; (73) Chardingjy; (74) Altay; (75) Burqin; (76) Ulungur Hu; (77) Fuyun county; (78) Tacheng county; (79) Sayram Hu; (80) Mori; (81) Xinyuan; (82) Langchaigou; (83) Anxi Gobi Nature Reserve; (84) Baihe Nature Reserve; (85) Jintang county; (86) Leibo; (87) Yangjie; (88) Donghuayuan; (89) Beidaihe; (90) Changli; (91) Laiyuan county; (92) Shijiutuo; (93) Xingtai; (94) Tianjin; (95) Beijing; (96) Hoei-Hsien; (97) Jiaozuo city; (98) Kaifeng county; (99) Gilgit; (100) Ayubia National Park; (101) Dera Ismail Khan district; (102) Chiltan mountains; (103) Manalsu; (104) Dharmasala; (105) Pong Dam lake; (106) Ambala; (107) Delhi; (108) Keoladeo National Park; (109) Jaisalmer; (110) Naini Tal; (111) Lucknow; (112) Sailana; (113) Melghat Sanctuary; (114) Dhule; (115) Paithan; (116) Ahmednagar; (117) Bhimashankar; (118) Pune; (119) Mahabaleshwar; (120) Solapur; (121) Belgaum district; (122) Kudremukh; (123) Wynaad district; (124) Wynaad Wildlife Sanctuary; (125) Dinapur; (126) Patna; (127) Balasore; (128) Durgapur; (129) Dishergarh; (130) Calcutta; (131) Naharlagun; (132) Dibrugarh; (133) Manas National Park; (134) Kaziranga National Park; (135) Barak river; (136) Mawphlang; (137) Naga hills; (138) Manipur hills; (139) Imphal; (140) Rara Lake National Park; (141) Muktinath; (142) Ghasa; (143) Pothana; (144) Birethante; (145) Lumle; (146) Khare; (147) Baglung; (148) Suikhet; (149) Phewa Tal; (150) Chandrakot; (151) Betrawati; (152) Helambu; (153) Tatopani; (154) Naubisse; (155) Kathmandu valley; (156) Kirantichop; (157) Navagaon; (158) Tumlingtar airstrip; (159) Pakhribas; (160) Santapur; (161) Mai valley; (162) Kosi Tappu Wildlife Reserve; (163) Kosi barrage; (164) Palatupana; (165) Sump Prabum; (166) Lunbye; (167) Plain of Jars.

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



*et al.* 1974) and two, February 1989 (H. S. Baral *in litt.* 1998); **Phewa Tal** (Pokhara lake), at least five roosting near the lakeside, November 1977 (Leece 1977), flocks up to 20, November 1982 (Halliday 1983), 50, November 1990 (D. Steele *in litt.* 1999), 120, October 1994 (P. Schiermacker-Hansen *in litt.* 1999), and at Phewa Tal, a regular autumn roost-site with a maximum of 340, October 1982 (Fleming *et al.* 1984), birds staying into December (see Nielsen 1986), including 25 on 26 December 1989 (Slack 1990); between **Chandrakot** and Ghandruk (Ghandrung), three sightings, January 1998 (Taylor and Abbott 1988); **Betrawati**, flock of 28, November 1980 (Madge and Appleby 1980); **Helambu** area, Keul, nine, November 1970 (Inskipp 1971); **Tatopani** to Chitre, upper Kali Gandaki valley, one, February 1988 (Good and Ryan 1988); Okhargaon, 10 km south-west of **Naubise**, Helambu district, north-central Nepal, two, October 1970 (Inskipp 1971); **Kathmandu valley**, undated (Hodgson 1844), seven flying north, April 1981 (Krabbe 1981), and at Balaju, where a rare passage migrant and winter visitor (Inskipp and Inskipp 1977); Charnawati river, 15 km west of **Kirantichap**, eight, October 1983 (Jongeling 1983), and Namdy, east of Kirantichap, five, November 1983 (Jongeling 1983); **Navagaon** to Sheduwa (Seduwa), one, December 1979 (Nepali 1986); near **Tumlingtar airstrip**, c.455 m, 20 in November, year unspecified (R. L. Fleming Jr. 1977, Fleming *et al.* 1984); **Pakhribas**, one, April 1978 (Isherwood 1978); **Santapur**, one, March 1989 (McKnight *et al.* 1989); **Mai valley** watershed, undated (Halliday and McKnight 1990); **Kosi Tappu Wildlife Reserve**, eight at Kushaha, January 1997 (Choudhary 1997, *Danphe* 6, 2 [1997]: 7–8), at least 330 migrating through the reserve, November 1998 (*Danphe* 8, 1 [1999], *Oriental Bird Club Bull.* 30 [1999]: 52–56); **Kosi barrage**, one, April 1981 (Krabbe 1981), male, April 1994 (Drijvers 1995, *Bird Conserv. Nepal Newsletter* 4, 3 [1995]: 2–3); Bih (untraced), Manaslu, 2,380 m, one, January 1999 (J.-C. Kovacs *in litt.* 1999); Royal Chitwan National Park (unconfirmed), reportedly rare, but no details available (Gurung 1983).

■ **SRI LANKA** It is a vagrant to the country (Grimmett *et al.* 1998) known by a single recent record: **Palatupana**, Yala, 1995 (Hoffmann 1996).

■ **MALDIVES** Records are as follows: Addu (Seenu) Atoll (not mapped), a small party, November–December, 1958, others in November–December 1961 (Phillips 1963), 1–3 regularly October–February, five in January 1975 (Strickland and Jenner 1978); Gamu Atoll (not mapped), October–February, undated (Strickland and Jenner 1978).

■ **MYANMAR** There are only two records, both dating from the mid-twentieth century: **Sumprabum**, given as “Sumpralum subdivision” in “the Triangle”, Myitkyina district, one, 1935 (Stanford 1937, Stanford and Ticehurst 1938–1939); **Lunbye**, south of the Sittang river in Pegu state, two males shot from a gathering of 30–40, April 1932 (Stanford 1932).

■ **LAOS** Although there are no recent records (Duckworth *et al.* 1999), the species formerly wintered in the north-west, where records were restricted to: **Plain of Jars**, Xiang Khouang (=Tranninh), “extraordinary numbers” during winter there and in the province in general, around 1940 (David-Beaulieu 1944), with specimen identification confirmed by Bourret (1943), the four males and three females stored in YPM and labelled “Laos” presumably being from this area.

**POPULATION** The European and North African population is estimated at 17,000–21,000 pairs, 8,000 in Spain, with several thousand pairs breeding outside this range, principally in Central Asia (Biber 1996). Western Palearctic populations have undergone serious declines (see Tucker and Heath 1994, Davygora 1998), although a few have begun to increase again (Biber 1996). Numbers overall in western Europe have declined by c.95% since 1950 and the species has disappeared from the Ural region of Russia and from northern Kazakhstan (Davygora 1998). Just outside the region covered here, a breeding population in south-east Kazakhstan was recently estimated at 500–2,000 pairs and is apparently secure, although the

total breeding population in Kazakhstan is “perhaps only 5,000–8,000 pairs” (Parr *et al.* 2000). The current South African wintering population probably does not exceed 50,000–60,000 birds, representing a 50% decline since 1971 (Davygora 1998). In southern Botswana flocks of over 100 birds were regular in the early 1980s, but could not be found during the 1990s (BirdLife International/CMS 2000b).

Although the status of the species is poorly known in most of its Asian range, the available information suggests that substantial breeding populations may survive in Mongolia and northern China. These could prove to be globally important given the declines that have taken place in Europe and Central Asia.

**Russia** In eastern Russia the species is known only from close to the Mongolian border (see Distribution) and it presumably only has a small population there.

**Mongolia** A reliable estimate for Mongolia cannot be attempted given the poor quality of data available, but a very conservative estimate would place the breeding population at least in the low thousands. Post-breeding concentrations of a few hundreds have been recorded in western Mongolia (A. Bräunlich *in litt.* 1999; see Distribution). On a railway journey through Dornogovi province, a maximum of 542 was counted on 14 August 1988 (P. S. Kerr-Smiley *in litt.* 1999; but see Remarks 1).

**China** The species has been described as “uncommon” in its Chinese breeding range, and “rare” elsewhere (Cheng Tso-hsin 1987), but given the sheer breadth of the breeding range in northern China, it is probably not unreasonable to suggest that there could be several thousand breeding pairs (see Distribution). “Large numbers” used to occur in the hills near Beijing in September (Swinhoe 1871), presumably representing flocks on migration, and the species has recently been found to be “uncommon to fairly common in mid-autumn” at Beidaihe in Hebei (Beidaihe Bird Society 1992, Williams *et al.* 1992; see Distribution). Trends are unknown but seem likely to be negative.

**Pakistan** A population breeds in Turkestan and birds regularly occur on migration in south-west Iran, so the species should be expected in Baluchistan (Roberts 1991–1992), yet records suggest that it passes through the country in only tiny numbers (see Distribution).

**India** Early accounts of its status and population in India are rather confused. Jesse (1902–1903), concluded that it was an “apparently rare winter visitor” in the Lucknow area. Other evidence suggests that a population once wintered further south, in the Deccan, where it was apparently “common” (Davidson and Wenden 1878) or “locally common” (E. A. Butler 1881), with several hundred roosting near Sholapur in January and flocks observed at Nagar. Curiously, it was thought to be nesting in the area as it was seen calling in mid-May at suitable nesting sites (Davidson and Wenden 1878), but this seems unlikely given its current breeding distribution; its status as a breeding bird in Maharashtra is therefore best treated as unconfirmed (Grimmett *et al.* 1998). In “Bengal” (presumably southern West Bengal given Blyth’s residence in Calcutta), Hume (1869–1870) quoted E. Blyth as declaring the species “not uncommon in the rainy season”. In north-east India it was presumably always uncommon as Hume (1888) himself never saw it and very few were collected. Similarly, Baker (1894–1901) thought it “rare” in North Cachar, having seen very few specimens. The current scatter of records throughout northern India suggests that Ali and Ripley (1968–1998) were accurate in their generalisation that the species is “apparently a rare winter visitor” but “perhaps more correctly” an irregular passage migrant in the country. However, large flocks in Orissa and the Deccan in January (see Distribution) were presumably wintering rather than on passage (*contra* Ali and Ripley 1968–1998).

**Nepal** The species moves through the country during passage periods in varying numbers annually, with a possible wintering population tentatively estimated at c.60 and declining (H. S. Baral *in litt.* 1998); the largest recorded congregation of the species was a roost of 340 at Pokhara lake in October 1982 (Fleming *et al.* 1984). Inskipp and Inskipp (1991) reported very few winter or spring records from the country. It is apparently a regular autumn

passage migrant and winter visitor to Pothana in the lower Kali Gandaki valley (Linderstrom 1989).

**Maldives** The species is “probably an annual visitor in small numbers” (Ash and Shafeeg 1994), although records are too few to be certain.

**Myanmar** It was perhaps formerly fairly common or at least regular on spring passage (see Distribution), but there are very few records despite a great deal of collecting and observation in the period roughly from 1860 to 1940.

**Laos** Some 60 years ago the species was described as being present in “extraordinary numbers” during the winter in Xiang Khouang province (= Tranninh), especially around the Plain of Jars, with more than 100 arriving at fires to feed on grasshoppers (David-Beaulieu 1944). As there have been no recent records anywhere in the country, despite extensive surveys, it is likely that a decline has taken place and that the species is now very rare (Duckworth *et al.* 1999).

**ECOLOGY** In Europe, Africa, the Middle East and Central Asia, it is a colonial breeder, often in the vicinity of human settlements, foraging in meadows, pastures, steppe-like habitats and non-intensively cultivated land in Europe, and in savanna, steppe, thornbush, open grassland and farmland in Africa, where it requires high densities of invertebrate prey, primarily large Orthoptera such as swarming locusts (Biber 1996). Further details of all aspects of its ecology in Europe and Africa are to be found in Cramp and Simmons (1980). Information from the Asian part of its range is given below.

**Habitat** In Mongolia it occurs in mountain steppes, mountain forest steppes, grassy steppes, desert steppes and less frequently in the desert itself (Piechocki 1968, A. Bräunlich *in litt.* 1999, 2000). Piechocki (1968) found a vertical separation of this species from Common Kestrel *Falco tinnunculus* in the Ich Bogd mountains in Mongolia, with Lesser Kestrels hunting in the foothills (up to 2,000 m) and Common Kestrels at higher elevations near the mountain tops; however, he also found a small nesting colony of 6–8 pairs of Lesser Kestrels mixed with Common Kestrels. Lesser Kestrel usually nests in rocky habitats in Mongolia, and it appears to shun buildings there, whether or not they are occupied; given the limited number of rocky outcrops with suitable nesting cavities, it is likely that some birds have adapted to nesting on the ground, perhaps in disused marmot *Marmota* burrows, but this needs to be confirmed by further investigation (Kerr-Smiley 1997–1998). In Mongolia they have been found roosting in tall trees in an urban park, and they are often seen perched on telegraph poles (Piechocki *et al.* 1981). Most non-breeding records in Nepal are from c.1,000 m (Linderstrom 1989), although they have been seen at up to 3,700 m above Muktinath (Turton and Speight 1982), sometimes passing through in large flocks. Spring migrants in Myanmar were seen scattered across a grassy plain (Stanford 1932). The evidently defunct wintering population in Laos focused on the Plain of Jars, which is also a large open grassy plain (see Distribution), and birds wintering in South Africa, the probable winter quarters of East Asian birds (see Migration), favour semi-arid grassland, particularly grassy karoo, sweet and mixed grassveld and central Kalahari vegetation types (McCann 1997).

**Food** In Mongolia, the species preys mainly on lizards *Phrynocephalus versicolor* in the desert (Piechocki *et al.* 1981), but grasshoppers are also important (A. Bräunlich *in litt.* 1999). In India, stomachs of specimens were crammed with grasshoppers Orthoptera, beetles Coleoptera, mole crickets *Gryllotalpa* and (once) a centipede (Ali and Ripley 1968–1998). In Myanmar, despite the abundance of rodents on the grassy plains, two migrant Lesser Kestrels examined had been hunting “some form of beetle or cockchafer” (Stanford 1932). The stomach of a male taken in Afghanistan contained “masses of grasshoppers and a large centipede” (Meinertzhagen 1938).

**Breeding** In Mongolia the species has been found nesting in rocky gorges, on rocky and earthen cliffs (especially in the desert) and in the old nests of Black-billed Magpies *Pica pica*

and crows *Corvus* (Piechocki 1968, A. Bräunlich *in litt.* 1999). Nests with eggs have been found in western Mongolia in late April, but birds probably breed slightly later further north where the climate is cooler; breeding continues into June and July, when downy young have been observed in the nests (Piechocki *et al.* 1981; also Kleinstäuber and Succow 1978).

**Migration** There are records of Lesser Kestrel from Laos, India, Nepal and the Maldives in December–February (see Distribution), presumably indicating that a proportion of the East Asian breeding population winters in the Indian subcontinent and (at least historically) in South-East Asia—Inskipp and Inskipp (1991) described an Asian wintering range for the species encompassing the Himalayas from Gilgit east to Nepal, and north-east India south to Tamil Nadu—but there is much support for the idea that the vast majority of, and perhaps now almost all, Asian-breeding Lesser Kestrels travel to winter in Africa (Cramp and Simmons 1980). First, the numbers seen in Asia during winter are tiny, and far smaller than the estimated East Asian breeding population. Second, the timing of movements suggests that much of the South African wintering population is not destined for Europe and North Africa, but for the Far East. Thus, spring arrival in the North African and Mediterranean breeding sites tends to occur early in spring between mid-February and March, while in central Europe and western Russia arrivals are slightly later (generally April) and in eastern Russia, Mongolia and China they are usually later still, first arrivals being in April (though small numbers have even been seen in early March: Kerr-Smilely 1997–1998), with many returning in early and mid-May (Cramp and Simmons 1980, Piechocki *et al.* 1981, Stephan 1994, Kerr-Smilely 1997–1998). Large migrant flocks pass through Afghanistan relatively early (see Meinertzhagen 1938), but these may be birds destined for less northerly breeding grounds. Thus, on the whole, the East Asian population tends to arrive on the breeding grounds much later than do European and North African birds. It is thus significant that the large population of Lesser Kestrels wintering in South Africa (where it is the commonest resident or wintering falcon species) leaves in March, later than do birds in equatorial Africa (Cramp and Simmons 1980), suggesting that East Asian birds winter towards the African Cape and may perform a migration across the Indian Ocean similar to that thought possible in Amur Falcon *Falco amurensis* (del Hoyo *et al.* 1994)—which would explain the records on the Maldives and the paucity of records in Pakistan. However, birds of the eastern form tend to migrate westwards in October–November through Nepal (Inskipp and Inskipp 1991), and have been recorded in the Middle East and Afghanistan (Baker 1922–1930, Paludan 1959), but never on several Indian Ocean islands such as Madagascar or Mauritius, where records would be expected if an oceanic crossing was undertaken.

While this falcon is remarkably social in its breeding habits, it is even more gregarious at other times, “constantly associating in flocks, often of considerable size and migrating in very large numbers” (Baker 1922–1930). In Mongolia, flocks of up to 100 begin to form in July and August prior to migration; their numbers fall off rapidly from early September, and by mid-month they have virtually all gone (Kerr-Smilely 1997–1998; also Piechocki 1968). Large numbers have been recorded passing through Nepal in November, although this seems very late; thus, c.330 on 15 November, c.100 on 24 November and c.50 on 27 November 1998 at Kosi Tappu Wildlife Reserve were apparently on migration (*Danphe* 8, 1 [1999]).

**THREATS** The main cause of the Lesser Kestrel’s decline has been habitat loss and degradation in its Western Palearctic breeding grounds, primarily a result of agricultural intensification, but also afforestation and urbanisation (Biber 1996). In South Africa, key grasslands have been destroyed and fragmented by agricultural intensification, afforestation and intensive pasture management (Pepler *in press*), but the number of Lesser Kestrel flocks in southern Botswana (see Population) has fallen despite the continued presence of apparently abundant habitat and food (BirdLife International/CMS 2000b). Unsuitable grazing regimes, particularly those which cause overgrazing in key grasslands for wintering birds, have

potentially important impacts on wintering Lesser Kestrels (Pepler 1996). In addition, desertification in the Sahel zone, important for passage and wintering birds, has reduced available habitat, while dams have destroyed large areas of suitable floodplain habitat which, when drying out after the wet season, were important for Lesser Kestrels (Ledant *et al.* 1986). Locust swarms, on which the species preferentially feeds, are less frequent in many regions as a result of the destruction of grasslands, overgrazing and the use of pesticides; indeed, pesticides may cause birds direct mortality, but are doubtless more important in reducing prey populations (BirdLife International/CMS 2000b). Winter roost-sites in South Africa are often under threat as they are usually found in towns and cities on land with potential for development (BirdLife International/CMS 2000b). In some instances removal of roost trees has caused birds to abandon a town the following year, and in other instances birds have moved to the next nearest tree or clump of trees, if available; birds at these roosts may be disturbed, killed with catapults and occasionally shot, usually in an attempt to move roosts that occur near residential areas (BirdLife International/CMS 2000b). The abandonment or restoration of old buildings has resulted in the loss of nest or colony sites in the breeding range (Davygora 1998, BirdLife International/CMS 2000b). In Uzbekistan, marginally outside the Asian region, the population appears to fluctuate with the abundance of prey, particularly locusts Orthoptera (BirdLife International/CMS 2000b), and eastern breeders may be similarly affected.

The influence of pesticides in reducing the abundance of prey populations is thought to be very important across the breeding and wintering range of the species (Negro *et al.* 1993, Biber 1996, Pepler 1996). The widespread and large-scale poisoning of locusts and Red-billed Quelea *Quelea quelea* with organochlorine and organophosphates in African passage and wintering range states may cause direct mortality of Lesser Kestrels or significantly reduce individual fitness; Lesser Kestrels are particularly attracted to locust swarms and will continue to feed on the insects even as pesticides are being applied to swarms (Pepler 1996). It is considered that increased use of organophosphates in Somalia, Ethiopia and northern Kenya may kill hundreds of Lesser Kestrels annually (BirdLife International/CMS 2000b).

While there is almost no information from the Asian breeding range it is likely that a combination of these threats applies. Information on the threats to this species in Asia is given below.

**Mongolia** There are no obvious threats to this species and its habitats in Mongolia, and its population appears to be stable (Kerr-Smiley 1997–1998). The area of land under cultivation in the country has never been extensive and has decreased in the past ten years, agrochemicals are not used in any quantity, and food and suitable breeding sites are plentiful (A. Bräunlich *in litt.* 1999). However, as the winter quarters of these birds are unknown (presumably southern Africa), it cannot be assumed that they face no significant threats.

**Mainland China** It is possible that the breeding population in northern China is threatened by habitat loss and the use of pesticides and poisons (see equivalent section under Greater Spotted Eagle *Aquila clanga* and Imperial Eagle *Aquila heliaca*).

**India** Intensification of agriculture and increased use of pesticides are two threats that have caused significant declines in raptor populations in India (Samant *et al.* 1995), perhaps including this species.

**Laos** Various species of raptor are hunted, primarily for food, and both dead and live specimens are traded in urban markets, the latter often as pets (Baird 1993, Duckworth *et al.* 1999). In addition, the claws of raptors are used in traditional medicine (Martin 1992). While the reasons underlying the loss of the species from Laos are unknown, hunting is quite possibly a significant factor as it is a ubiquitous practice in the human population (Thewlis *et al.* 1998).

**MEASURES TAKEN** In Europe, the Middle East and Africa, research into and management of the species, its sites and habitats have been carried out in France, Spain, Portugal, Gibraltar,

Italy, Greece, Bulgaria, Turkey, Israel, Jordan and South Africa (Biber 1996). The provision of artificial nests has been successful in several countries (BirdLife International/CMS 2000b). National action plans have been prepared in Italy and Bulgaria, France and Ukraine, international action plans were published in 1996 (Biber 1996) and 2000 (BirdLife International/CMS 2000b); the species is listed on Appendix II of CITES (Biber 1996) and on Appendices I and II of the CMS (BirdLife International/CMS 2000b; see also Boere 1991). In Asia, it occurs (at least intermittently) in several protected areas.

**Protected areas** The Lesser Kestrel presumably breeds in several protected areas in Mongolia and China, and occurs on passage in nature reserves elsewhere in Asia, but few records are specifically linked to a particular protected area (see Distribution). The only such records are from: *China* Anxi Gobi Nature Reserve, Gansu; Baihe Nature Reserve, Sichuan; Taihangshan Macaque Nature Reserve, Henan; *Mongolia* Gobi Gurvan Saichan National Park; *India* Keoladeo National Park, Rajasthan; Manas National Park, Assam; Kaziranga National Park, Assam; Wynaad Wildlife Sanctuary, Kerala; *Nepal* Annapurna Conservation Area; Chitwan National Park; Rara Lake National Park; and Kosi Tappu Wildlife Reserve.

**MEASURES PROPOSED** In Europe, the Middle East and Africa, measures proposed for the conservation of the Lesser Kestrel include: promoting environmentally sound farming schemes; protecting colonies from accidental and deliberate disturbance; promoting a zoned forestry policy; supporting construction of artificial nesting devices; encouraging full legal protection for the species and the designation of protected areas at international and national levels; promoting the production of national species action plans; surveys to identify important areas, especially in the former USSR and West Africa; researching limiting factors and appropriate habitat management; and establishing a working group on the species to coordinate research and conservation action (BirdLife International/CMS 2000a).

In the Asian region enforced legal protection of this species from hunting and poisoning is required (see, e.g., Duckworth *et al.* 1999). Moreover, any threats in its breeding range should be counteracted with similar measures to those above for Europe and western Asia.

Given the limited amount of information available on the distribution and numbers of Lesser Kestrel in Asia, and the threats that may be affecting it, the most immediate action required is research to fill these gaps in knowledge. This could include surveys of the breeding range in Mongolia and northern China, to improve understanding of its distribution, numbers and trends, and to determine the populations that occur and breed within existing protected areas. Monitoring at selected sites, including those where historical data are available (see Distribution), could be used to determine whether numbers are stable or are in decline in different parts of its range. Studies of the East Asian birds' migratory routes and African wintering areas could help to determine whether there are particular pressures on them outside the breeding season; in particular, an intensive ringing (and possibly also wing-tagging) programme on the breeding grounds might definitely establish the population's winter quarters within Africa. Winter surveys of former and potential wintering areas in Asia should be undertaken to establish whether a significant proportion of the East Asian population winters within the region and, if so, what threats they face there and what may be done to alleviate them; prime among such sites would be the Xiang Khouang plateau of Laos (see Distribution), although repeated recent visits have failed to encounter the species (J. W. Duckworth *in litt.* 2000), and another area worth investigation must be the grasslands of north-central Cambodia, where major populations of the Bengal Florican *Houbaropsis bengalensis* (see relevant account) and several other threatened open-country species have been found. In key wintering areas, the effects of pesticide use, particularly in reducing the abundance of locusts as food, needs further study, as does the impact of roost-site destruction (see Threats).

**REMARKS** (1) The separation of this species from Common Kestrel *Falco tinnunculus*, particularly in the field, is problematic, and it is therefore possible that some sight records (and even some specimen records) listed in the Distribution section involve misidentifications. Some of the more controversial records are best treated as inconclusive. For example, Whistler and Kinnear (1931–1937) discredited both previous records for southern India, these being Jerdon’s breeding birds on the cliffs of the Nilgiris and the lost specimen apparently shot at Coonoor (Hume 1869–1870). The measurements are all that are available for this latter bird, and these do not categorically rule out Common Kestrel. In addition, Adams (1867) remarked that of the two kestrel species found in the Dugshai area, both were common, but “the Lesser Kestrel is the most abundant”; this is almost certainly based on a misidentification (see Distribution). Again, in the late nineteenth century, the species was described as “common in the Wurdwan and Kashmir” (Cordeaux 1894), again based on a presumed misidentification of Common Kestrel. Lastly, P. S. Kerr-Smiley *in litt.* (1999) reported large numbers observed from train windows in Mongolia over a period of several years, and while most of these records are doubtless correct, there is a possibility, given the viewing conditions, that the species may sometimes have been confused with Common Kestrel, which is also widespread in Mongolia.