

Selected records from Socheong Island, South Korea

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Socheong Island, South Korea, is especially well positioned to provide valuable insights into bird migration and seabird status in both South Korea and the Democratic People's Republic of Korea. Details are given of ornithologically significant records made on the island between October 2002 and October 2005, including six species recorded for the first time on the Korean peninsula: 'Steppe' Grey Shrike *Lanius (meridionalis) pallidirostris*, Chinese Thrush *Turdus mupinensis*, Yellow-bellied Tit *Parus venustulus*, Tickell's Leaf Warbler *Phylloscopus affinis*, Chinese Leaf Warbler *Phylloscopus yunnanensis* and Scaly-breasted Munia *Lonchura punctulata*.

INTRODUCTION

The Korean peninsula (= territory of the Republic of Korea or South Korea, and the Democratic People's Republic of Korea, DPRK, combined, including marine areas and islands) received relatively superficial ornithological exploration until fairly recently, with the birds of DPRK remaining particularly poorly known (Tomek 1999, 2002). Although recent observations have added several new species to the DPRK list (Duckworth 2004), and revised the status of several dozen others (Duckworth 2006), there is still very limited available information on the status of many species, especially in coastal and offshore areas.

In South Korea, a gradual but accelerating increase in ornithological activity in the second half of the twentieth century led to a corresponding growth in the national checklist, with 337 species listed by Austin (1948; but excluding Jeju island), 366 by Gore and Won (1971), and 438 species by Lee *et al.* (2000), the latter containing an increased number of species known from South Korea only by sight records, as well as an abbreviated status code for each species. Subsequently, an unpublished thesis (Park Jin-Young 2002) presented dates and locations of specimens from South Korea and most sight records known to that author, either published or contained in unpublished trip reports.

Since 2002, work by the conservation organisation *Birds Korea* has led to the production of a regularly revised internet-based national checklist (containing over 500 species by 2006). In the continuing absence of a national rarities committee, and with the increase in recreational birdwatching not only outpacing opportunities for publication of significant records but also improving greatly on the understanding of status, *Birds Korea's* websites present information and images received from a large number of observers, as well as comments elicited from experienced observers on difficult identifications. Annual online reviews produced by the organisation (Moore and Moore 2002, 2003, 2004a, 2005) contain mostly sight records, with many from ferries and offshore islands in the Korean part of the Yellow Sea, especially Socheong Island, Ongjin Gun, Incheon municipality (37°45'N 124°44'E), Eocheong Island, Gunsan, Jeollabuk province (36°08'N 125°58'E), Hong Island, Jeollanam province (34°41'N 125°13'E) and Gageo Island, Jeollanam province, (34°03'N 125°09'E). These records have greatly advanced our understanding of the national status of a wide range of migrant species.

This paper lists significant observations from Socheong Island over c.175 dates of observation during October

2002–October 2005, including the same species' occurrence in open sea areas of Gyeonggi Bay, lying between Socheong Island and Incheon Port. It omits records at sea for species so far unrecorded from Socheong Island itself.

Socheong Island is the southernmost and smallest of three closely grouped, remote, South Korean islands in the Yellow (or West) Sea, lying c.200 km west-north-west of Incheon city and mainland South Korea, 40 km west and south of the mainland of Hwanghaenam province, DPRK, and 200 km east-north-east of the western tip of the Shandong peninsula, Shandong province, China. Its location and size mean that it is especially well positioned to provide valuable insights into bird migration, and seabird status, both in coastal DPRK and South Korea.

The island was first surveyed, with a focus on raptors, in mid-October 2002, and then by NM counting all bird species on 130 dates (including 42 part-days with ferry journeys between Incheon and Socheong) between May 2003 and October 2005. At least 35 observers visited the island up to October 2005, the majority accompanying NM, identifying at least 298 species on the island in total (see Appendix).

This paper details records on Socheong Island of 122 species, selected on the basis of one or more criteria: species of global conservation concern (i.e., listed as threatened or Near Threatened by BirdLife International 2006); species not included in Lee *et al.* (2000); species recorded ten times or fewer in Gyeonggi province (including Incheon municipality), South Korea, according to Park (2002); and based on Tomek (1999, 2002) and Duckworth (2006) species either (a) with six or fewer DPRK records up to 1998, or (b) with only one or no records between 1975 and 1998 in DPRK.

Records were made by NM except where stated. Specific dates are provided for all species meeting one of the preceding criteria and recorded six times or fewer on Socheong. Peak counts and more general observations are provided for more regularly occurring species, including the number of dates the species was recorded in both spring and autumn. In many cases, such data can be presented clearly; in a few cases, data provided by other observers were insufficiently detailed in this regard. For all species, context of their status on the Korean peninsula (i.e. in South Korea and DPRK) with a special emphasis on Gyeonggi province and the Yellow Sea is provided by comparison with Park (2002), Tomek (1999, 2002), and Duckworth (2004, 2006).

METHODS

Observations were made with 8× binoculars and a telescope with 20–60× eyepiece, and were often supported by digital photography. NM made observations during: 22–26 March 2003; 13–16, 26–29 April 2004; 14–21 May 2004, 16–23 May 2005, 26–31 May 2003, with records from Klemens Steiof during 1–5 May 2004; from Kenji Mochizuki during 1–5 May 2005, 1–3 June 2004, 1–4 June 2005, 18–23 August 2004; from Thomas Heinicke and Jürgen Steudtner during 9–11 August 2004, 4–9, 13–23 September 2004, 23–26 September 2003; from Park Jin-Young over 3–4 September 2004; from Fergus Crystal from 15 September to 4 October 2005, 1–3, 24–31 October 2003, 4–19, 31 October 2004, 20–30 October 2005; from Kim Dong-Won in mid-October 2002, and from Toshikazu Onishi, Yozo Koshiyama, Atsushi Igari, Tim Edelsten and Robin Newlin during 15–23 October 2005, 1 November 2003, 2–3, 5–13 November 2004, and 14–16 December 2003.

Bird observations by NM tended to be made along a circuit through the main habitat types. Socheong Island is c.4.5 km in length and c.1 km in width, oriented on a south-west–north-east axis, with the South Korean islands of Daecheong (37°48'N 124°40'E) and Baekryeong (37°58'N 124°38'E) lying close to the north, the DPRK coast to the east and north, and open sea to the south and west. It is hilly, rather than mountainous, with two low peaks (the highest of which reaches 174 m), and two villages, both with a few arable fields. Most of the island is rather heavily vegetated, with much secondary woodland (areas of pine, mixed, and deciduous woodland, much of which has been coppiced), intermixed with more open grasses and low shrubs, formerly heavily grazed by goats. Much of the coastline is rocky and there is little permanent wetland on the island, with only five largely modified streams, and one small beach with a very small sandy–mud tidal-flat of c.1 ha exposed at low tides. As it is not possible to cover the whole island in a single day, survey circuits concentrated on the south-western two-thirds of the island, especially in areas with water, shelter, sunlight or high bird activity, covering all the main habitat types described above. In clear conditions, prolonged counting of diurnal migrants (especially raptors and hirundines) was conducted from a hill peak (with other habitats covered less well), while in rain or when heavily overcast, greater effort was made searching for grounded migrants in the far south-west of the island.

RESULTS

At least 298 species were recorded (see Appendix), with 122 of particular ornithological interest to either South Korea, DPRK or the Korean peninsula as a whole. Eight species are classified as Near Threatened, seven as Vulnerable and one as Endangered. The records include six species new for the Korean peninsula, and the first presumed breeding record of one more (Light-vented Bulbul *Pycnonotus sinensis*).

Selected species accounts

JAPANESE QUAIL *Coturnix japonica*

Noted on 23 dates: seven times in spring, between 24

March and 19 May, and 16 times in autumn, between 20 September and 13 November. Most records involved single birds, with peak counts of five on 12 April, three on 6 October and three on 12 November, all in 2004.

Considered a 'common autumn transient through Korea' by Austin (1948), Park (2002) traced specimens from five provinces, including 14 from Gyeonggi (all between October and April, apart from one collected in August 1957), but only one sight record from there. Although Tomek (1999) traced multiple records for DPRK, only one was post-1975, on 15 December 1989.

BLACK SCOTER *Melanitta nigra*

Recorded on several dates between 7 November and 16 April, with a peak of 15 on 13 November 2004. Twenty were noted between Socheong and neighbouring Daecheong Island on 14 December 2003, indicating local wintering.

Although Tomek (1999) traced 11 records for DPRK (with only four records in the last 50 years), she found no recent records for the DPRK part of the West Sea. Park (2002) listed two specimens from Gyeonggi province and one sight record there, 18 near Baekryeong Island during 18–20 April 1998, and sight records from three other provinces in South Korea.

YELLOW-LEGGED BUTTONQUAIL *Turnix tanki*

One record in spring (on 15 May 2004), and records in autumn on c.15 dates during at least 4 September–28 October, mostly singles, with a peak count of four (on 21 September 2004).

Tomek (1999) traced only eight records from DPRK. Park (2002) listed only three sight records for South Korea (one of which was in Gyeonggi province), with those all between 1993 and 2001, but also 12 specimens collected in Gyeonggi province, including five during 13–15 July 1964 in Namyangju city.

EURASIAN WRYNECK *Jynx torquilla*

Recorded ten times, in spring (on four dates between 12 and 28 April), and in autumn, on six dates between 21 August and 22 September, with the highest numbers being three on 12 April 2004 and again on 27 April 2004.

Park (2002) listed three specimens and no sight records for Gyeonggi province, with five sight records and one specimen from south-west South Korea, while Tomek (1999) traced 11 records from spring (April–May) and five from autumn (August–September), with only one post-1975 record in DPRK.

RUFIOUS-BELLIED WOODPECKER *Dendrocopos hyperythrus*

Five records, with singles on 17 May and 20 May 2004 (both photographed), a male between 16 and 19 May 2005, a female on 22 May 2005, and one on 14 September 2005 (the last by M. Brazil, *per* F. Crystal *in litt.* 2005).

Park (2002) listed three specimens, all collected in Gyeonggi province (in October 1919, 10 May 1961 and undated in 1968), and no sight records for South Korea, while Tomek (1999) traced only three records for DPRK (in May, May–June and in September), the last in 1933.

HOUSE SWIFT *Apus affinis*

Five records involving seven birds, with one on 30 May 2003; one on 2 October 2003; two on 29 April 2004; three on 5 September 2004 and one on 31 October 2004.

Park (2002) listed no records for Gyeonggi, one specimen from Jeju (1989) and six sight records (13 individuals) in South Korea, first in 1989, all in Jeollanam and Jeju, while Tomek (1999) traced no records in DPRK.

BARN OWL *Tyto alba* / **GRASS OWL** *T. capensis*

A screeching call, believed to be made by a *Tyto* owl, was heard at late dusk on 25 and 26 October 2003, while a very pale *Tyto* sp. owl (either a Barn or Grass Owl) was then seen in the same area in very poor evening light on 28 October, flying alongside and even landing on the road. Although no species of *Tyto* had been listed at that time for the Korean peninsula, a Grass Owl was found dead on Daeheuksan Island, Jeollanam province, South Korea on 25 December 2003 (Park Jong-Gil *in litt.* 2003, Moores and Moores 2003), with the specimen now held on Hong Island by the National Parks Association (pers. obs).

Neither Grass nor Barn Owl is listed in Tomek (1999), Lee *et al.* (2000) or Park (2002).

LITTLE OWL *Athene noctua*

Three records, all in autumn 2004: one on 4 September (Park Jin-Young *in litt.* 2004), one on 22 September and one on 13 October. Considering the conspicuous behaviour of the individuals on 4 September and 13 October (when they were photographed), the gap in dates between observations (despite high observer activity), and the presence of a further Little Owl seen on Baekryeong Island (c.20 km to the north) by Park Jin-Young (*in litt.* 2004) on 6 September 2004, it seems likely that three different individuals were involved. It is perhaps notable that the species was not recorded in either 2003 or 2005.

Park (2002) listed six specimens (and no sight records) from South Korea, five of which were from Gyeonggi province, in the months of February, March, April, September, October and December. These have been followed by several subsequent records in winter in northern and western provinces (e.g. Moores and Moores 2005). Tomek (1999) traced 12 DPRK records with the most recent in 1962, while Duckworth (2006) listed a further six individuals at least.

LONG-EARED OWL *Asio otus*

Three records involving four individuals: two on 29 October 2003, one on 11 November 2004, and one found recently dead on 18 October 2005 (T. Edelsten and R. Newlin *in litt.* 2005). In addition, one or more probably two were seen over the sea between Socheong Island and Incheon Port on 31 October 2004.

Park (2002) listed nine specimens from Gyeonggi and nine from other provinces in South Korea, only three sight records (of four individuals), and described roosts (which now no longer exist) formerly of 20–30 in pines in autumn and winter. Tomek (1999) traced about a dozen DPRK records, the latest acceptable one from 1958, while Duckworth (2006) clarified the status of two earlier reports and added one more record.

SHORT-EARED OWL *Asio flammeus*

One record on 14 December 2003.

Park (2002) listed 11 specimens and five sight records from Gyeonggi province, with three further specimens and multiple sight records from five other provinces, all but one from between mid-November and early April.

Duckworth (2006) reviewed its status in DPRK and concluded it is probably now scarce there.

JAPANESE WOOD PIGEON *Columba janthina*

Near Threatened. One was heard giving repeated and diagnostic calls on 1 October 2005 by an observer very experienced with the species; although searched for intensively it could not be seen (F. Crystal *in litt.* 2005).

Park (2002) listed no records for Gyeonggi province, although the species breeds very locally in three or four other provinces in South Korea. A provisional record from Wonsan in Stepanyan (1998) from 18 November 1989 is the only indication of occurrence in DPRK.

RED COLLARED DOVE *Streptopelia tranquebarica*

Three records, all in spring 2005, when female-type individuals were photographed in different parts of the island on 20 May, 22–23 May and 3–4 June.

Tomek (1999) traced four records for DRPK (first in 1928), while Park (2002) listed one specimen (Jeju, 1993), and three sight records for South Korea, all from western provinces, in May–June 2001.

WHITE-BELLIED GREEN PIGEON *Treron sieboldii*

A male on 18 May 2005 was very poorly photographed, with the same (or another) found by Kenji Mochizuki on 22 May, and again seen by NM.

Park (2002) listed four specimens (first collected in 1977) and two sight records for South Korea (four on Tok-Do in the East Sea in October 1992, and one in Gyeongsangnam province in May 1998). It was not listed by Tomek (1999) for DPRK.

WHITE-BREASTED WATERHEN *Amaurornis phoenicurus*

Five records of singles, all in different parts of the island: on 14 and 16 May 2004, and 18, 21 and 22 May 2005.

Park (2002) listed a number of records from six provinces of South Korea (first in 1970, but most from more recent years), including three specimens and three sight records from Gyeonggi province. He also described a failed breeding attempt in Jeollabuk province in summer 2001. Tomek (1999) traced only a single record for DPRK, on 19 May 1984.

BAND-BELLIED CRAKE *Porzana paykullii*

Near Threatened. An immature was seen clearly, although briefly, for a total of c.5 seconds, on 21 September 2004. After a heavy rainstorm in the early hours, it was flushed twice at close range from tangled grasses above the main village in the early morning. The bird was large (almost the size of Common Moorhen *Gallinula chloropus*, and much bulkier-looking than Ruddy-breasted Crake *P. fusca*, a species with which NM is very familiar), with dark brown upperparts, and pale buffish-chestnut underparts, a paler throat and belly and a pale buffish wash ventrally. The flanks were prominently but finely barred black and white, and in flight it showed faint pale barring or spotting on the upperwing-coverts. The bill was dull brownish and the legs dull greenish-brown. A deep *ock* call given once from the same spot as the bird flushed from was presumably given by this bird.

Park (2002) listed six specimens for South Korea, the last in 1962, five of which were collected in Gyeonggi province. There is one additional recent record in South Korea: one collected in the Seoul/Gyeonggi area in 1995

(Park Jong-Gil *in litt.* 2004). Tomek (1999) traced about 12 records for DPRK, the last in 1960.

LATHAM'S SNIPE *Gallinago hardwickii*

Although about a quarter to a third of snipes seen were left unidentified, there were four records, involving probably six individuals, all in 2004, identified as Latham's Snipe: singles on 15, 16 and 26 April; three on 28 April; and another single on 29 April. They were identified by a combination of size and structure (large, long-billed, long-tailed with angular wing-tips and a rapid flight) and plumage details (pale, sandy-toned with largely very pale median upperwing-coverts, no obvious white on the secondaries, and a contrasting head pattern), with birds also drumming briefly on 28 and 29 April. The lack of records in 2003 or 2005 reflects the lack of coverage between mid- and late April in those years. This species is a regular migrant in South Korea, with records annually, especially on offshore islands in the second half of April (e.g. Moores and Moores 2003, 2004a, 2005), and this peak of migration accords well with migrants arriving in Hokkaido and neighbouring offshore islands in Japan during 13–24 April (Brazil 1991).

Tomek (1999) traced no data from DPRK, while Park (2002) detailed one specimen, and only five sight records for South Korea, none from Gyeonggi province.

PINTAIL SNIPE *Gallinago stenura*

Recorded on 22 dates, twice in spring (with singles on 28 April and 17 May, both in 2004), and the remainder in autumn, on dates between 19 August and 4 October. Most records were of single birds, with the highest counts being five on each of 19 August and 4 September, both in 2004. Pintail Snipes were identified by a combination of call, small size and structure (proportionately short-billed, often with toes extending prominently behind the sometimes wedge-shaped-looking tail in flight).

Park (2002) traced sight records in spring and autumn from four provinces, including Gyeonggi, and 27 specimens from there, with the majority (at least 17) collected between late August and mid-September. Tomek (1999) listed ten records, with six in May and four between August and mid-September, with the most recent in 1969.

SWINHOE'S SNIPE *Gallinago megala*

Six single Swinhoe's Snipes, on 30 May 2003, 31 May 2004, 4 September 2003, 5 September 2003, 17 September 2005 (photographed, F. Crystal *in litt.* 2005) and 17 October 2003, were identified through a combination of size (large), structure (rather long-billed, with rounded-looking primaries), plumage tones (grey-washed and dark) and flight pattern (comparatively slow) and on at least one occasion on call (deep, lacking the wetness or the rasping tones of other east Asian snipe species).

Tomek (1999) traced only three records for DPRK. Park (2002) listed 18 specimens from Gyeonggi province, most from September, and five sight records from Gyeonggi and Jeollanam provinces.

LITTLE CURLEW *Numenius minutus*

One, during 27–29 April 2004, and a flock of four or more heard pre-dawn on 19 May 2005.

Park (2002) listed three specimens and no sight records from Gyeonggi province, with four sight records

nationwide, including a flock of 21 on 29 April 1993 on Jeju. Tomek (1999) traced seven records on the west coast (end April–May) and only one record on the east coast of DPRK.

MARSH SANDPIPER *Tringa stagnatilis*

One (photographed) on the beach on 18 May 2005.

Park (2002) listed ten specimens from Gyeonggi province alone, and sight records from seven provinces in South Korea including in Gyeonggi, with a national high count of 230 on 29 August 1999 at the Dongjin estuary, Saemangeum (with a further count of 200 there in September 2005: Moores and Moores 2005). However, Tomek (1999) traced only two records for DPRK (one in August 1917, the second in September 1930).

GREATER PAINTED-SNIPE *Rostratula benghalensis*

One on 2 October 2003 (D. Parmenter *in litt.* 2003).

Park (2002) detailed one specimen (from 1887) but no sight records from Gyeonggi province, along with sight records and information on recent breeding further south in South Korea, while Tomek (1999) traced no data for DPRK.

GREY-HEADED LAPWING *Vanellus cinereus*

One was photographed on the main beach on 17 May 2004.

Park (2002) detailed five specimens and one sight record from Gyeonggi province, as well as one specimen and a total of nine sight records from five other provinces. Tomek (1999) accepted one record (16 September 1989), and Duckworth (2006) recorded the species only once.

ORIENTAL PRATINCOLE *Glareola maldivarum*

Three records, with singles on 27 April 2004, 20 May 2004 and 18 May 2005.

Park (2002) traced four sight records (eight individuals) from Gyeonggi province (and specimens from one province and sight records from five other provinces in South Korea), while Tomek (1999) traced only one previous DPRK record, with Duckworth (2006) adding one more, of three on 30 April 2002.

SOUTH POLAR SKUA *Catharacta maccormicki*

Observed only once from Socheong Island itself (one on 24 October 2003). The species, however, appears to be regular in autumn at sea between Socheong and Incheon Port, with 12 further records (most by NM and other observers experienced with this species) involving 15 individuals (including both paler and darker individuals), between 9 September and 3 November. Identification was based on size, structure and plumage (often in direct comparison with Pomarine Jaeger *Stercorarius pomarinus*), although the possibility of confusion of some dark individuals with the unrecorded Brown Skua *C. antarctica*, listed for the Oriental region by Inskipp *et al.* (1996), might exist.

Not listed by Lee *et al.* (2000), Park (2002), Tomek (1999) or Duckworth (2006), although recorded several times in South Korea since the first in 1995 (e.g. Moores and Moores 2005).

POMARINE JAEGER *Stercorarius pomarinus*

Recorded from Socheong Island itself on only four occasions (one on 1 October 2004; eight on 2 October

2003; 25 on 12 October 2003; and five on 18 October 2004). The species is regular in autumn at sea between Incheon Port and Socheong Island, with one spring record (one on 26 May 2003), and records on 23 dates in autumn between 23 August and 5 November involving 354 individuals. The highest counts are from early October to early November, with 36 on 13 October 2003, 49 on 4 October 2004, 45 on 19 October 2004, 82 on 31 October 2004, 51 on 3 November 2004 and 40 on 5 November 2004.

Not listed by Lee *et al.* (2000), Park (2002) or Tomek (1999), although occasionally numerous on migration in South Korean waters (e.g. Moores and Moores 2002, 2003, 2004a, 2005).

PARASITIC JAEGER *Stercorarius parasiticus*

Recorded three times from Socheong Island itself, with singles on 25 September and 2 October 2003, and two on 12 October 2003. Recorded rather more frequently at sea between Socheong Island and Incheon Port, with one spring record (one on 29 April 2004) and eight records involving 29 individuals in autumn, between 23 September and 31 October.

Not listed by Tomek (1999) for DPRK, while Park (2002) detailed one sight record of four on 15 September 1987 in the East Sea 3 km off Pohang as the only South Korean record. It is now considered to occur regularly in South Korean waters (Moores and Moores 2002, 2003, 2004a, 2005).

SLATY-BACKED GULL *Larus schistisagus*

Recorded seven times (nine individuals) on Socheong Island itself, between 21 October and 25 March, with at least three further autumn records (four individuals) from the ferry between Socheong and Incheon Port.

Park (2002) listed multiple records, including of large flocks, from four provinces but none from Gyeonggi, while Tomek (1999) traced DPRK records from only four sites (but one was seriously doubted by Duckworth 2006), and Stepanyan (1998) and Duckworth (2006) each recorded it from one further site.

BLACK-LEGGED KITTIWAKE *Rissa tridactyla*

On Socheong Island itself, one on 25 September 2003, and then recorded especially from mid-October to mid-November, occasionally in large rafts entirely made up of adults (based on plumage features, all evidently of the Pacific subspecies *R. t. pollicaris*). Highest counts from the island include 500 on 24 October 2003, 2,200 on 15 October 2004, and >500 on 12 November 2004. The species can be even more numerous at sea in October and November, with high counts from the ferry between Incheon Port and Socheong Island in 2004 including 3,800 on 31 October 2004, 5,900 on 3 November, and 1,300 on 13 November. Again, almost all individuals (>99%) were adults, with most birds seen from the ferry moving west or south-west. The species is much scarcer in December and March (none was seen from Socheong in those months; only eight were seen from the ferry on 16 December 2003, and only one from the ferry on 22 March 2004, with none on 26 March 2004).

Park (2002) listed only one record for coastal Gyeonggi province (50 on 30 December 1999), and highest counts on the east coast of South Korea of 1,000 in December 1989 in Gangwon province and 561 on 14 November

2001 along the coast between Ulsan and Pohang (Gyeongsangnam). Tomek (1999) traced only five records in DPRK, all on the east coast, and all between late September and February (a quoted date of 18 September 1989 was an error for 18 October 1989; Fiebig 1993), while Duckworth (2006) recorded it twice in DPRK, both times inland (in October 2002 and November 2004). These observations combined consolidate the suggestion (by NM in Robson 2004: 102) that many Black-legged Kittiwakes cross the Korean peninsula overland in October and November (with many also moving south down the east coast at that time).

ANCIENT MURRELET *Synthliboramphus antiquus*

Recorded only five times from Socheong Island itself, with one on 13 April 2004, 85 on 14 May 2004, three on 16 May 2005, and 20–25 on 2 November 2004. It is possibly present throughout much of the year, as observations from the ferry within 5 km of Socheong include records in April, May and June (three on 3 June 2004), and again in October, November and December. The highest count between Incheon Port and Socheong was 292 on 13 November 2004, when >200 were within sight of the island.

Tomek (1999) traced about ten records for DPRK, with most from the east coast. She cited a single record from Hwanghae province, on 5 March 1922 (Austin 1948), which she suggested was evidence of nesting. However, the species is often found in non-breeding areas in Japan until early May (Brazil 1991). Park (2002) included no specimens and only one sight record from Gyeonggi province, a count of 3,000 on 12 December 1999, while providing details of even higher winter counts from the east coast, with a single day count in Gyeongsangbuk province of 16,000 (on 20 January 2001), as well as information on localised breeding in the southern part of the Yellow Sea.

RHINOCEROS AUKLET *Cerorhinca monocerata*

Between three and eight individuals were seen from Socheong Island on 15 December 2003, in addition to three or more seen from the ferry near the island on 13 December 2003.

Tomek (1999) found more than ten records on eastern and western coasts of DPRK, with all observations between April and June, most recently in 1967. Park (2002) listed specimens from three, and observations from four, provinces in South Korea, but none from Gyeonggi province.

ORIENTAL HONEY-BUZZARD *Pernis ptilorhynchus*

This is one of the most numerous raptors recorded on Socheong Island, especially in autumn. There are records on eight dates in spring between 28 April and 3 June, and on c.50 dates in autumn between 5 September and 29 October. The highest count in spring was eight on 28 May 2003, while counts of over 100 have been made on at least six dates in autumn, twice by NM (130 on 23 September 2003, 120 on 25 September 2003) and four times by F. Crystal in 2005 (188 on 22 September, 149 on 24 September, 207 on 25 September, 171 on 26 September, and 239 on 27 September). In 2005, a total of 1,240 were estimated to have passed west between 22 September and 4 October (F. Crystal *in litt.* 2005).

Park (2002) listed sight records from a total of five provinces in South Korea, with four specimens (including

one presumably erroneous record from 20 February 1930, from Austin 1948), and seven sight records (of c.85 individuals) from Gyeonggi province, between 30 April and 17 May and again from 15 September to 5 October. Tomek (1999) traced only five DPRK records and overlooked one in Fiebig (1993), with Duckworth (2006) adding several more, all of small numbers.

WHITE-TAILED EAGLE *Haliaeetus albicilla*

Near Threatened. Two records: singles on 16 December 2003 and 29 October 2005.

Park (2002) traced nine specimens and 15 sight records (45 individuals) from Gyeonggi province alone, with specimens and multiple sight records from six other provinces (including breeding in the far south-west), while Tomek (1999) listed many records in winter on the west and east coasts and included the observation from Fiebig (1993) that the species is not rare in DPRK, occurring regularly even in the Pyongyang city centre during 1999–2004 (J. W. Duckworth *in litt.* 2006).

CINEREOUS VULTURE *Aegypius monachus*

Near Threatened. One on Socheong and Daecheong Islands (commuting between the islands) during at least 26–31 May 2003.

Park (2002) listed four specimens from Gyeonggi province, and numerous sight records from there and five other provinces. Tomek (1999) traced only one recent DPRK record, and Stepanyan (1998) and Duckworth (2006) each added one further recent sight record. Large numbers winter over and near the de-militarised zone running between South Korea and DPRK (Lee *et al.* 2004).

CRESTED SERPENT EAGLE *Spilornis cheela*

One was seen well in flight in October 2002 (Kim Dong-Won verbally 2004).

This species was not listed by Tomek (1999) for DPRK. Park (2002) listed two specimens and one sight record from Gyeongsangnam province in south-east South Korea.

'EASTERN MARSH HARRIER' *Circus (aeruginosus) spilonotus*

An uncommon migrant, recorded only in autumn, on nine dates between 20 September and 12 October. All records were of singles, except two on 25 September 2003, three on 2 October 2003, two on 10 October 2004 and two on 20 September 2005 (the last by F. Crystal *in litt.* 2005). All individuals were identified as *spilonotus* based on rump, upperwing-coverts and underwing pattern.

Park (2002) listed six specimens from Gyeonggi province, and one sight record from there, along with either specimens or sight records from six other provinces (all implied to be *spilonotus*), while Tomek (1999) traced only four records and Duckworth (2006) discussed further records in DPRK.

PIED HARRIER *Circus melanoleucos*

Only one record in spring (2 June 2004), but recorded on 25 dates in autumn, between 3 September and 31 October, with highest day counts by year of three on 12 October 2003, ten on 19 September 2004 and 16 on 20 September 2005 (last by F. Crystal *in litt.* 2005), and a total of 40 individuals logged during autumn 2005.

These Socheong records indicate a far more regular autumn passage of the species through the area than the

few records in the South Korean literature suggest. Park (2002) listed a total of seven specimens from Gyeonggi province, with six of these from April and May, and only one from mid-September, and only one sight record, on the apparently slightly atypical date of 21 August 1984. He listed only two other sight records in South Korea (both from Seosan on the west coast), but added that it had been reported breeding in Cheorwon, Gangwon province. Tomek (1999) traced a dozen or so records, and described it as a breeding species in DPRK, while J. W. Duckworth (*in litt.* 2006) probably saw the species once or more in DPRK during 1999–2004.

GREATER SPOTTED EAGLE *Aquila clanga*

Vulnerable. Observed three times, all in October, with three on 12 October 2004, one or two on 13 October 2004 and one on 23 October 2005. In addition, possibly up to 16, all juvenile types, all flying singly, were counted moving west on one day in mid-October 2002 (Kim Dong-Won verbally 2004). Considering the tendency for many large raptors to circle the island before committing to a long sea-crossing, especially when visibility is poor, it is unclear how many individuals were involved on that day.

Tomek (1999) traced no records for DPRK, while Park (2002) listed seven specimens from Gyeonggi province (all dated between 20 November and 16 March), and sight records from two other provinces.

IMPERIAL EAGLE *Aquila heliaca*

Vulnerable. Singles on 13 October 2003 and 18 October 2005 (the latter: Toshikazu Onishi, Yozo Koshiyama and Atsushi Igari *in litt.* 2005).

Park (2002) listed one specimen and six sight records all of singles from Gyeonggi province, as well as sight records from six other provinces. Tomek (1999) traced three DPRK records, between 9 December and 21 February, overlooking one reported in Neff (1956).

AMUR FALCON *Falco amurensis*

Recorded on five dates in spring (between 27 April and 20 May) and on at least 16 dates in autumn, between 8 September and 24 October. The highest count in spring was of four (on both 18 and 19 May 2005), while in autumn at least 300 were counted in a single day, on 16 October 2005 (last by Toshikazu Onishi, Yozo Koshiyama and Atsushi Igari *in litt.* 2005). This is a far higher count than any previously published in South Korea, though it followed very soon after 96 counted on 11 October 2005 at Imjingak, Gyeonggi province (NM unpublished data).

Park (2002) listed six specimens from Gyeonggi province (one collected in mid-April, and five between 14 September and 20 October) and only four sight records, all of single birds, as well as sight records from four other provinces. Tomek (1999) described the species as 'rarely observed' in DPRK, and J. W. Duckworth (*in litt.* 2006) saw only small numbers a few times in DPRK during 1999–2004.

HORNED GREBE *Podiceps auritus*

Two on 29 October 2003.

Park (2002) listed sight records from three other provinces in South Korea, and two specimens but no sight records from Gyeonggi province, while Tomek (1999) traced no records of the species on the west coast of DPRK.

GREAT CORMORANT *Phalacrocorax carbo*

One record: a first-year bird with Temminck's Cormorant *P. capillatus* on 25 October 2003. Identification was based on the criteria outlined by Lethaby and Moores (1999).

Park (2002) traced specimens from five provinces (including four from Gyeonggi), and sight records from four provinces, with the highest count in Gyeonggi of six (in July 2001), and nationwide of 1,558 at the Nakdong Estuary, in December 1992. Tomek (1999) noted that it was formerly very common in the DPRK 'at the turn of the century [c.1900]', adding that 'in the past fifty years there have been hardly two reports'. She listed only one record post-1975, in April 1987.

CHINESE EGRET *Egretta eulophotes*

Vulnerable. Two records: a breeding-plumaged adult on 27 April 2004, and a juvenile-type on 19 September 2004.

Park (2002) traced two specimens from Gyeonggi province, and numerous sight records (some of >100 individuals; see also BirdLife International 2001), while Tomek (1999) stated that probably between 100 and several hundred pairs nest in western DPRK. This region of western Korea forms the core of the species's global breeding range (BirdLife International 2001).

INTERMEDIATE EGRET *Mesophoyx intermedia*

Most regular in spring, when seen on ten dates, with records between 26 April and 3 June, and a peak count of three on 21–22 May 2005. There was only one record in autumn: four on 2 October (F. Crystal *in litt.* 2005).

Duckworth (2006) added several records to the two traced by Tomek (1999) in DPRK (the latter rejected many records as unproven, so perhaps underestimated the frequency of occurrence in DPRK), while Park (2002) listed seven specimens from Gyeonggi province and only two sight records (although mentioning that breeding had been recorded) as well as sight records or specimens from four other provinces.

CHINESE POND HERON *Ardeola bacchus*

The species is a regular migrant (as on several other west coast islands in South Korea: e.g. Anon. 2003), especially in spring when it is often found in small groups of three or four birds. It has been recorded on at least 19 dates between 28 April and 3 June, with the highest count being >10 on 21 May 2005. It has been recorded only once in autumn: one on 2 October 2005 (F. Crystal *in litt.* 2005).

Park (2002) listed nine sight records from Gyeonggi province, including one record of five birds present in July 1998, and sight records from six other provinces. Following the first records in South Korea in 1985, breeding has recently been suspected in Cheorwon, Gangwon province, and proven on Ganghwa, Gyeonggi province (Moores and Moores 2004a, 2005). Tomek (1999) traced only two records for DPRK, both in June.

BLACK-CROWNED NIGHT HERON *Nycticorax nycticorax*

A regular migrant, recorded on eight dates between 27 April and 2 June and on 22 dates between 21 August and 29 October. The highest counts in spring were of four on 27 April and again on 17 May 2004, while in autumn there were ten on 5 September 2003, and, seen by F. Crystal (*in litt.* 2005), 25 on 2 October 2005.

Park (2002) discussed its recent colonisation of South Korea, listing seven specimens from Gyeonggi province

(earliest from 1960) and sight records including 74 on 30 September 1991 on Ganghwa, and 250 at Pyeongtaek on 2 April 2000, as well as many sight records from six other provinces. Tomek (1999) listed only two records for DPRK, from 1925 and 1931, but the species has recently also become much more frequent there (Duckworth 2006).

JAPANESE NIGHT HERON *Gorsachius goisagi*

Endangered. One was photographed between 26 April and 20 May 2004, the same period that the species was recorded on at least three other South Korean islands (Moores and Moores 2004a).

Park (2002) listed four specimens from Gyeongsangnam province (the most recent in 2001) and five specimens from Jeju, as well as a total of five further sight records from Jeollanam and Jeju. It was not listed by Tomek (1999) for DPRK.

BLACK BITTERN *Dupetor flavicollis*

An adult male was watched flying in off the sea on 19 May 2005. It was photographed before it apparently entered a covered concrete drain running under the village. The same afternoon presumably the same individual was then seen 500 m away, walking along a track in a dense belt of conifers.

Park (2002) listed single specimens from Gangwon province (June) and Jeju (May), as well as one sight record from Jeollanam province (May). It was not listed by Tomek (1999) for DPRK.

BLACK STORK *Ciconia nigra*

Two records: a single bird on 2 October 2003, and three together, photographed, flying west, on 31 October 2004.

Park (2002) listed six specimens from five provinces in South Korea and two sight records in Gyeonggi (including one nest-building in June 1965), as well as c.20 sight records from four other provinces. Tomek (1999) considered it a breeding species for DPRK, but much rarer now than a century ago.

LESSER FRIGATEBIRD *Fregata ariel*

An immature was photographed on 9 August 2004 (T. Heinicke and J. Steudtner *in litt.* 2004).

Park (2002) listed two specimens from Gyeonggi province (one in July 1961, one in January 1967) and two sight records, both of individuals (one in June, one in July), as well as two sight records of singles from other provinces, while Tomek (1999) traced one record for DPRK.

RED-THROATED LOON *Gavia stellata*

Recorded from Socheong Island on 24 March 2004 (one) and 25 March 2004 (two). In addition, the species was seen at least three times from the ferry between Socheong Island and Incheon Port, with one on 22 March 2004, four on 26 April 2004, and three on 30 May 2004, the latter individuals in breeding plumage.

Park (2002) listed one specimen and only two sight records from Gyeonggi province (both from 1932), as well as specimens or sight records from six other provinces in South Korea. Tomek (1999) traced only five records for DPRK, only one of which was in the last 50 years, with Duckworth (2006) adding two more.

BLACK-THROATED LOON *Gavia arctica*

Recorded from Socheong Island three times, with two on 14 December 2003, two on 13 April 2004, and one on 20 May 2005. It was also recorded at sea between Socheong Island and Incheon Port twice, with one on 25 March 2004 and four on 16 May 2005.

Park (2002) listed no specimens or sight records for Gyeonggi province, but sight records and/or specimens from five other provinces in South Korea. Tomek (1999) traced eight records for DPRK (although few if any excluded Pacific Loon *G. pacifica* from identification), while J. W. Duckworth (*in litt.* 2006) saw the species regularly there during 1999–2004.

PACIFIC LOON *Gavia pacifica*

As well as unidentified loons sometimes seen offshore, Pacific Loons were confidently identified twice from Socheong Island itself: one on 18 May 2005 and two on 16 December 2003. In addition, breeding plumaged Pacific Loons were seen from the ferry between Socheong Island and Incheon Port four times between 26 April and 30 May (including 16 on 16 May 2005), while non-breeding plumaged birds were seen at least four times between 30 October and 13 November, with a peak of c.100 on 13 November 2004. Identification of non-breeding-plumaged individuals was based on structure (small, short-billed) and plumage details (particularly the darker 'face' and obvious chin strap and ventral strap: e.g. Moores 1996).

Park (2002) listed no specimens or sight records from Gyeonggi province, with sight records and/or specimens from four other provinces in South Korea. Tomek (1999) did not refer to the species (records listed by her as *G. arctica* were presumably not critically distinguished from this species, which formerly was regarded as conspecific with *G. arctica*), although J. W. Duckworth (*in litt.* 2006) probably saw the species once in DPRK, on 17 June 2003.

YELLOW-BILLED LOON *Gavia adamsii*

From Socheong Island, at least five and probably eight non-breeding plumaged birds were present at long range, identifiable only in good light with a calm sea and a 60× lens on 25 March 2004 (potentially at least some might have been Common Loon *G. immer*, a species unrecorded on the Korean peninsula). From the ferry between Socheong Island and Incheon Port, one juvenile type was seen close to Socheong on 16 December 2003, while singles were seen 10–50 km out to sea on 26 March 2004, 12 April 2004 and 1 May 2004 (the latter by K. Steiof *in litt.* 2004): the last two records were apparently breeding-plumaged adults.

The sea near Socheong is probably used regularly by the species between at least December and May. Satellite tracking of five Yellow-billed Loons breeding on the Alaskan north slope in 2002 and six in 2003 showed that all migrated south into coastal East Asia, with some individuals migrating across the Korean peninsula to winter in the Yellow Sea, e.g. off the Shandong Peninsula and in sea areas near Socheong from the end of November–December until at least March (J. Schmutz *in litt.* 2003, 2006, Earnst 2004), with Earnst (2004) suggesting that Alaskan-breeding Yellow-billed Loons return to Alaska in the last third of May. Park (2002) listed no sight records for South Korea (apparently overlooking records from March 1948 in Busan given by Fennell [1952]), and only

two specimens from South Korea, both from Gangwon province in the north-east. The first of these was from Soondalmyeon in 1914 (which Duckworth [2006] later traced to being within DPRK and not South Korea, while adding one further record of the species for DPRK), with the second record inland, from Chuncheon on 28 April 1975.

STREAKED SHEARWATER *Calonectris leucomelas*

This shearwater was present and occasionally numerous off Socheong between late March and early November, and evidently (based on anecdotal evidence and observed behaviour) nests either on Socheong, or, more likely, on neighbouring islands. The earliest spring record was of 96 on 23 March 2004; the latest autumn record was one on 1 November 2004, with 14 seen from the ferry on 5 November 2004. Highest counts by year include 1,000 on 25 September 2003, 1,300 on 14 May 2004 and 600 on 29 September 2005 (last by F. Crystal *in litt.* 2005), with birds frequently gathering in a dense raft off the western end of the island at dusk.

Park (2002) traced both specimens and sight records from five provinces, including one collected on 12 November 1968 in Gyeonggi. Although only one sight record is listed for Gyeonggi, counts in other provinces include a maximum of 5,000 in Jeju in September 1992. While tracing only seven records, none post-1975, Tomek (1999) described it as a 'rare breeding' species on islands situated along the west and east coasts of DPRK, 'probably more frequent than might be judged from the number of observations'.

FLESH-FOOTED SHEARWATER *Puffinus carneipes*

From Socheong Island itself, this species was noted four times in autumn, with two on 25 September 2003, and singles on 2 October 2003, 14 September 2004 and 18 October 2004. It was slightly more regular at sea between Socheong Island and Incheon Port, with 12 further observations, all between 20 September and 30 October, involving 21 individuals (with a maximum count of four on 23 September 2004).

Duckworth (2004) reviewed the status of the species in DPRK, tracing ten ringing recoveries, while Park (2002) listed six specimens from two east coast provinces (in 1963 and 1965), and one sight record (two, on 30 August 1996 offshore from Gyeongsangnam province), apparently overlooking information in Fennell (1966) that stated 'according to above reports, at least nine Flesh-footed Shearwaters have been recorded in Korean coastal waters', and Purchase (1971) that indicated c.34 recoveries of birds banded on Lord Howe Island had so far been observed in Korean waters (both DPRK and South Korea) off the east coast, including two recovered off Sokcho in June 1969–1970(?). Indeed, Purchase (1971) even came to the conclusion that the Korean East Sea/Sea of Japan is the 'main [austral] wintering area' for Flesh-footed Shearwater breeding on Lord Howe Island.

SHORT-TAILED SHEARWATER *Puffinus tenuirostris*

Noted four times from Socheong Island itself, with two on 18 August 2004, three on 1 October 2003, three or more on 2 October 2003, and one on 18 October 2004. In addition one was seen from the ferry just offshore from Socheong on 3 June 2004. In open sea between Socheong Island and Incheon Port, two were seen from the ferry on

18 August 2004 and 23 August 2004, with further singles on 23 September 2003 and 3 October 2003.

Duckworth (2004) concluded that the sole DPRK record in Tomek (1999) was in error for Flesh-footed Shearwater, while Park (2002) listed seven specimens from three east coast provinces in South Korea and no sight records.

FAIRY PITTA *Pitta nympha*

Vulnerable. One on 17 September 2004.

Park (2002) listed four specimens (all from July) and no sight records from Gyeonggi province, with 26 further specimens from three other provinces in South Korea, and sight records also from the southern provinces of Gyeongsangnam, Jeollanam and Jeju. Tomek (2002) traced five records from DPRK, the last in 1963.

'STEPPE' GREY SHRIKE *Lanius (meridionalis) pallidirostris*

One photographed at close range on 22 September 2004 was identified as this taxon. After discussion on images of the bird posted on the *Birds Korea* website and a prolonged review of literature, including Conzemius (2001), separation from Chinese Grey Shrike *L. sphenocercus*, and identification as *L. (m.) pallidirostris* was based on a combination of features including its smaller size, apparent lack of extensive white wing-stripe, paler rump and uppertail-coverts, tail pattern and shape (lacking obviously longer central tail feathers) and its brownish toes. Separation from Great Grey Shrike *L. excubitor*, most especially of subspecies *bianchi* (collected four times and observed once in South Korea, between November and March: Park 2002) was based on e.g. the complete lack of vermiculations on the underparts, its buffish wash on the underparts and, again, the brownish toes (e.g. Moores and Moores 2004b).

Lanius meridionalis, only recently considered by some authorities as specifically distinct from *L. excubitor*, is not listed by Lee *et al.* (2000) or Park (2002), while Tomek (2002) does not provide sufficient plumage details of the four specimens of *L. excubitor sensu lato* (collected in months of November–February) in DPRK to either rule out or suggest identification as *pallidirostris*. As such, this is presumably the first record for the Korean peninsula.

BLACK-WINGED CUCKOOSHRIKE *Coracina melaschistos*

Three singles, on 21 May 2005 (Kenji Mochizuki *in litt.* 2005); a probable, on 18 September (M. Brazil *in litt.* 2005); and, well-observed and -described, on 2 October 2005 (F. Crystal *in litt.* 2005).

It was not included in Tomek (2002) for DPRK, and Park (2002) listed only one previous record for South Korea, a sight record in Jeollanam province in August 1998.

BLACK DRONGO *Dicrurus macrocercus*

This species appears to be a regular spring migrant (as on other outlying western islands in South Korea: e.g. Anon. 2003, Moores and Moores 2003, 2004a, 2005), recorded in 2003, 2004 and 2005, with a total of probably c.30 individuals on 17 dates between 3 May and 4 June, with 11 on 22 May 2005 the highest count.

Park (2002) listed one specimen and one sight record from Gyeonggi province (a single bird said to have been collected on the extraordinarily early date of 30 March

1993 on Baekryeong Island, and one seen on 2 June 2001), and eight sight records, all since 1988, from the west and south-west of the country. Tomek (2002) traced one record, in mid-May, from DPRK.

ASHY DRONGO *Dicrurus leucophaeus*

One (grey with whitish ear-coverts) was recorded on 25 and 26 September 2003.

Park (2002) listed two sight records from South Korea (both in Jeollanam province), although it has recently been recorded scarcely in South Korea each year in spring (Moores and Moores 2003, 2004a, 2005), while Tomek (2002) traced three records from DPRK.

SPANGLED DRONGO *Dicrurus hottentottus*

One on 21 May 2005.

One collected in November 1959 in Gyeongsangnam province is the only record in Park (2002), though it has recently been recorded annually in South Korea in spring (e.g. Anon. 2003, Moores and Moores 2003, 2004a, 2005); Tomek (2002) traced no records for DPRK.

ASIAN PARADISE-FLYCATCHER *Terpsiphone paradisi*

A female-type seen well but briefly (for c.10 seconds) on 30 May 2003. Separation from Japanese Paradise-flycatcher *T. atrocaudata* was based on the distinctly glossy crown, slightly less striking eye-ring, and grey rather than sooty-grey wash on the breast, which appeared much less contrasting and clear-cut.

Park (2002) listed two specimens for South Korea: one in Gyeonggi province on 1 July 1917 (cited from Austin 1948), and one from near Busan on 11 September 1954, but overlooked or ignored the records of two males on 'Kamak San' near the Imjin river, on 23 May 1954 (Macfarlane 1963). Tomek (2002) traced records only from one province in DPRK, all between 1917 and 1950.

JAPANESE PARADISE-FLYCATCHER *Terpsiphone atrocaudata*

Near Threatened. One or two records, with a first-year male in song watched well on 30 May 2003, and two or three heard giving a very distinctive *huoy-huoy-huoy* song phrase (referring to either this species or perhaps Asian Paradise-flycatcher) on 2 June 2004.

Park (2002) listed 11 specimens and one sight record from Gyeonggi province with 36 further specimens from four and sight records from five further provinces respectively, including breeding, while Tomek (2002) described it as a breeding species in DPRK (tracing about 20 records of the species).

JAPANESE WAXWING *Bombycilla japonica*

Near Threatened. Two on 14 May 2004.

Park (2002) listed four specimens from Gyeonggi province and 17 from four further provinces, with sight records from four other provinces between 21 December and 11 May. Although he listed none from Gyeonggi, flocks have been seen in Seoul on several occasions (NM, unpublished data). Tomek (2002) categorised the species as a 'very rare winter visitor and passage migrant' to DPRK, tracing only five dated records (from two sites), while Duckworth (2006) added observations from several sites in Pyongyang, with birds recorded between 18 November and 19 May.

BLUE ROCK THRUSH *Monticola solitarius*

While the subspecies *M. s. philippensis* occurs regularly, there is only one record of *M. s. pandoo*: one on 2 May 2005 (K. Mochizuki *in litt.* 2005).

This is the second record of this subspecies for South Korea, after one photographed on Eocheong Island on 23 April 2005 (Moores and Moores 2005).

JAPANESE THRUSH *Turdus cardis*

Recorded on seven dates, four in spring (five individuals between 27 April and 21 May) and three consecutive dates in autumn 2004, when all records concerned a significant arrival of thrushes following a severe thunderstorm and strong south-easterly winds. There were at least 17 on 11, five on 12 and at least seven on 13 November 2004.

Park (2002) listed six specimens and also sight records from three southern provinces, with only one sight record from Gyeonggi province (two in May 1985 in Incheon), while Tomek (2002) accepted only one record from DPRK.

EURASIAN BLACKBIRD *Turdus merula*

Recorded on at least ten dates, between 22 March and 22 May, with singles on most dates, but two on 22 March 2004, four on 21 May 2005 (including a singing male), and two on 22 May 2005.

Park (2002) listed eight sight records from three provinces in South Korea, including one sight record from Gyeonggi province (one in March 2000), all since the first record of a small breeding colony found in 1999. Duckworth (2004) showed that it had also been occurring with some regularity in small numbers in Pyongyang since the first observations in 2000, with one record elsewhere in DPRK. All birds showed morphological and vocal characters of the east Asian form *T. (m.) mandarinus*, the only one likely to occur on geographical grounds.

BROWN-HEADED THRUSH *Turdus chrysolaus*

Recorded only on three (consecutive) dates, with three on 27 April, one on 28 April and two on 29 April 2004.

Park (2002) listed specimens and sight records from the three southern provinces (Jeollanam, Gyeongsangnam and Jeju, but none from Gyeonggi), while Duckworth (2006) reviewed its status in DPRK, tracing fewer than ten records.

DARK-THROATED THRUSH *Turdus ruficollis*

Recorded on at least 15 dates (perhaps 17 individuals), with two records in spring (24 March 2004 and 12 April 2004), and the remainder in autumn (between 12 October and 11 November). Both subspecies were recorded, with three records of *T. r. atrogularis* (singles on 24 March 2004, 26 October 2004 and 22 October 2005), at least six nominate *T. r. ruficollis* (singles on 26 October 2003, 29 October 2003, 9 November 2004, and two on 20 October 2005), and another eight individuals not identified to subspecies.

Duckworth (2004) detailed the first record for DPRK (in Pyongyang on 11 April 2003), while Park (2002) listed two sight records (seven individuals) for South Korea, both from Jeollanam province, with five on 23 September 1989 (the largest single count and almost a month earlier than any other Korean record of this species known to NM), and two on 15 October 2001.

CHINESE THRUSH *Turdus mupinensis*

Two records: one on 31 May 2003 (well-watched and photographed), and one on 18 May 2005, the latter flushed from tangled grasses almost underfoot and flew over 100 m into taller cover. The individuals' bulky structure and their plumage features (including the face pattern, hint of wing-bars and obviously spotted underparts) were considered adequate to rule out any possible confusion species and confirm identification.

The species was not listed by Lee *et al.* (2000), Park (2002) or Tomek (2002). These records constitute the first and second records for the Korean peninsula.

NARCISSUS FLYCATCHER *Ficedula narcissina*

Recorded on five dates in spring, with singles on 30 May 2003 and 27 April 2005, and multiple counts coming from three consecutive days in 2004, with five on 2 May, 12 (all males) on 3 May, and five on 4 May 2004 (K. Steiof *in litt.* 2004).

Park (2002) listed specimens and sight records from the three southern provinces of Jeollanam, Gyeongsangnam and Jeju, and one sight record from Gyeonggi province (a single on Baekryeong Island on 3 May 1995), while Duckworth (2006) traced six records for DPRK.

RED-BREASTED FLYCATCHER *Ficedula parva*

Following Svensson *et al.* (2005), this is best considered a monotypic species distinct from Red-throated or Taiga Flycatcher *F. albicilla*. Although *F. albicilla* is a regular migrant, 3–4 first-winter *F. parva* have also been recorded. Two calling birds were found and photographed within 500 m of each other on 6 November 2004 (with one or both remaining until 8 November); one calling presumed *F. parva* was photographed on 11 November 2004; and one was heard and seen briefly on 28 October 2005. Identification of all individuals was based on a combination of features, as outlined in Svensson *et al.* (2005). These included: the colour of the longest uppertail coverts being paler than the tail; the bill showing an obvious paler base (in all but the individual on 11 November 2004, suggesting either atypical bare part coloration or even the possibility of it being a hybrid *F. parva* × *F. albicilla*); the warmth of the 'face' colour; and the rattle-call, which sounds much softer in *F. parva* than *F. albicilla*.

No records of *F. parva sensu stricto* are explicitly listed by either Park (2002) or Tomek (2002). However, it is certain that many past records of this species-pair would not have been critically identified, and, hence, their relative proportion is unclear under the name of *F. parva sensu lato*. There is only one previous record of *F. parva sensu stricto* in South Korea: one on Eocheong Island on 30 April 2003 (NM, unpublished data documented with photographs on the internet).

VERDITER FLYCATCHER *Eumyias thalassina*

One (found by D. Buss and NM) on 2 November 2003.

This species was not listed for DPRK by Tomek (2002), while Park (2002) listed one record for South Korea (one photographed on Gageo Island in mid-October 2001).

JAPANESE ROBIN *Erithacus akahige*

A male was present between at least 11 and 13 November 2004, following a severe thunderstorm and strong south-easterly winds overnight on 10–11 November.

Park (2002) listed five specimens from Gyeongsangnam province in the south-east of the peninsula, and three sight records (six individuals) from Jeju and Jeollanam provinces, all records between 31 March and 27 April. Duckworth (2006) collated the three records from DPRK.

SIBERIAN RUBYTHROAT *Luscinia calliope*

An occasionally numerous migrant. Recorded on at least 19 dates in spring between 14 April and 2 June, and on 37 dates in autumn, with the earliest on 21 August, and the remainder between 20 September and 12 November. Peak numbers have been recorded in the second half of May (with e.g. 15 on 20 May 2005) and again in the first half of October (with high counts of >10 on 3 October 2003, >20 on 7 October 2004, and 43 on 4 October 2005; the last by F. Crystal *in litt.* 2005).

Park (2002) listed 13 specimens from Gyeonggi province (between 20 and 29 April in spring, and 24 September and 15 October in autumn) and numerous sight records nationwide, including singing males occupying territories on Sorak Mountain, Gangwon province, in summer 2001. Duckworth (2006) reviewed records in the DPRK, describing it as a 'common breeder' at his only study site with appropriate habitat (the Myohyang mountains), and a locally common passage migrant.

BLUETHROAT *Luscinia svecica*

Recorded at least three times in autumn, with singles on 7 October 2004, 2 November 2004 and 23 October 2005.

Park (2002) listed eight specimens and no sight records from Gyeonggi province, with sight records from four other provinces, while Duckworth (2006) referred to two known records from DPRK.

GREY BUSHCHAT *Saxicola ferrea*

An adult male was present (and photographed) between 20 May and at least 22 May 2005.

No records were traced for DPRK by Tomek (2002), and only one record for South Korea was listed in Park (2002), on Daechong Island, Incheon/Gyeonggi, on 5 May 1987. Moores and Moores (2004a) reported one further record in South Korea, on Eocheong Island in April 2004.

ISABELLINE WHEATEAR *Oenanthe isabellina*

One was photographed by M. Brazil and others on 5 May 2005 (K. Mochizuki *in litt.* 2005).

This species was not listed by Lee *et al.* (2000), Park (2002), or Tomek (2002), being first recorded on the Korean peninsula on 1 May 2003 by Park Jong-Gil (Anon. 2003, Moores and Moores 2003), with a second South Korean record in April 2005 (Moores and Moores 2005).

RED-BILLED STARLING *Sturnus sericeus*

Probably six individuals were recorded on five dates in spring 2004, with singles on 24 March, 12 April and 15 April, three or four on 16 April, and one on 27 April.

The lack of records in 2003 and 2005 is probably at least in part due to the lack of coverage in late March and April in those years, as the species is now considered a scarce but regular migrant to South Korea, most especially in April (e.g. Anon. 2003, Moores and Moores 2005). Park (2002) listed seven sight records (nine birds) in three

provinces, with the first record in South Korea (in Gyeonggi province) on 16 April 2000, while Duckworth (2004) described the first record for DPRK (in August 2001).

CHESTNUT-CHEEKED STARLING *Sturnus philippensis*

Two were present on 21 August 2004, and F. Crystal (*in litt.* 2005) reported a group of 15 in flight, believed to be of this species, on 4 October 2005.

Park (2002) listed three specimens and three sight records (five individuals) from Gyeonggi province, including two in Seoul in June 1989 and in mid-July 1997, as well as sight records from five other provinces, while Duckworth (2006) listed the two dated records from DPRK.

CHINESE PENDULINE TIT *Remiz consobrinus*

Four on 22 October 2005 and 1 on 23 October 2005 are the only records; Socheong Island has very little habitat suitable for the species.

Park (2002) listed five specimens and four sight records (34 individuals) from Gyeonggi province as well as sight records from four other provinces, while Duckworth (2006) traced 12 records for DPRK.

YELLOW-BELLIED TIT *Parus venustulus*

One first-winter male was photographed on 22 October 2005.

The species was not listed by Lee *et al.* (2000), Park (2002) or Tomek (2002), and this constitutes the first record for the Korean peninsula. Following this record, one was seen on 13 November 2005 in Gunsan (J. Maclellan and P. Nebel *in litt.* 2005), and one was well-photographed on the mainland in Incheon (between 22 January and at least 23 February 2006: R. Newlin, T. Edelsten, NM unpublished data).

SAND MARTIN *Riparia riparia*

A regular migrant, often occurring during movements of other hirundines. Recorded on eight dates in spring, between 14 and 29 May, and on 12 dates in autumn, between 19 August and 21 October. The highest counts by year were two on 29 May 2003, eight on 14 September 2004, and 40 on 18 May 2005.

Park (2002) listed 14 specimens from Gyeonggi province and seven sight records, including a peak count of 150 on 12 September 1970 in Shiheung city, as well as sight records from four other provinces. Tomek (2002) traced only four records in DPRK, with Duckworth (2006) adding one further record.

NORTHERN HOUSE MARTIN *Delichon urbica*

Five records, with two on 27 May 2003, and singles on 3 and 24 September 2003, 14 September 2004, and 16 October 2005 (the last by T. Onishi, Y. Koshiyama and A. Igari *in litt.* 2005). All were considered to be of the subspecies *D. u. lagopoda*, based on range, and in particular on the very extensive white on the upperparts (including the rump, the lower back and the longest uppertail-coverts).

It was not listed by Lee *et al.* (2000), Park (2002) or Tomek (2002), with the first record for the Korean peninsula on Eocheong Island, when one was photographed on 19 April and two on 20 April 2003 (NM unpublished data, documented with photographs on the internet).

ASIAN HOUSE MARTIN *Delichon dasypus*

A sometimes numerous migrant especially in autumn, recorded on at least 11 dates in spring, and at least 35 dates in autumn. It was noted in spring between 12 April and 30 May, and in autumn from 3 September to 8 November, with most records and the largest numbers in September and the first half of October. Selected high counts include 25 on 29 May 2003, 45 on 3 September 2004, 100 on 9 October 2004, and 3,000 on 21 September 2005 (the last by F. Crystal *in litt.* 2005).

Counts on Socheong far exceed those in Park (2002), who listed only two sight records from Gyeonggi province and sight records from three other provinces in South Korea, with the highest day count nationwide of only 40 on 9 May 2000 (on Gageo Island). In DPRK, Tomek (2002) described it as a 'very rare breeding species' and traced seven dated records, while J. W. Duckworth (*in litt.* 2006) saw the species only a few times in DPRK in 1999–2004.

LIGHT-VENTED BULBUL *Pycnonotus sinensis*

First noted on 16 May 2004, with two or three (either two together, or two separate singing adults noted) until 18 May, followed by two more on 30 May, increasing to five on 2 June 2004, when singing was noted in three parts of the central island. No observers were present after that time, until early August, when several juveniles/immatures (short-tailed and lacking the adult head pattern) were observed, with at least 13 such immatures noted on 18 August, when several were food-begging from an adult. This constitutes the first presumed breeding record of the species for the Korean peninsula (Robson 2004). Although rather more skulking through much of September (with at least ten noted still on 23 September), birds became increasingly vocal and noticeable again in October, when a peak of 15 was seen on 15 October 2004. At least 12 were still present on 6 November 2004, including a group of c.10 seen flying high, moving 100 m or so out to sea, and then returning to land. Several birds were still present when observations ceased in mid-November. In 2005, no observers were present before early May, when again the species was noted, with three present from 2 May onwards (K. Mochizuki *in litt.* 2005). In mid-May, one or two on 16 May had increased to five or more on 19 May, and six or more on 20 May, again with frequent singing, and four adults were still present on 3 June. Again, there were no observers on Socheong until mid-September, when F. Crystal (*in litt.* 2005) noted a 'resident pair with two young' on 17 September 2005. Observations continued until the end of October, with at least three or four on 29 October 2005 either representing the same individuals, or newly arrived migrants.

It was not listed by Lee *et al.* (2000), Park (2002) or Tomek (2002). The first record for the Korean peninsula was one photographed on Eocheong Island on 29 October 2002 (NM unpublished data, documented with photographs on the internet). There have been several subsequent records away from Socheong, mostly on the south-west islands (e.g. Moores and Moores 2005).

ZITTING CISTICOLA *Cisticola juncidis*

Recorded on at least 17 dates: one on 3–4 June 2005, and the remainder between 20 September and 7 November. The highest counts were of four on 5 October 2004 and five on 1 October 2005.

While Tomek (2002) traced no records for the DPRK, Park (2002) traced 13 sight records (but no specimens) from Gyeonggi province, all since 1995, including counts of up to six birds, in all months between April and September. First recorded in South Korea on Jeju Island in November 1926, Park (2002) listed specimens and sight records from three and six provinces respectively. Based on personal observations, *C. j. brunniceps* is now a widespread and locally numerous summer visitor throughout coastal South Korea, typically breeding in rice-fields and reed-beds. It differs markedly in e.g. song and plumage from European-breeding birds.

CHESTNUT-FLANKED WHITE-EYE *Zosterops erythropleurus*

Recorded on at least 16 dates in spring (between 16 April and 3 June) and on 50 dates in autumn (between 15 September and 2 November). Accurate counts are very difficult to make, as flocks can be fast-moving and highly mobile. Highest counts in spring by year are five on 31 May 2003, 35 on 15 May 2004, and >100 on 19 May 2005, while in autumn, highest counts by year are 30 on 24 September 2003, >100 on 22 September 2004, and 400 on 22 September 2005 (the last by F. Crystal *in litt.* 2005).

Records on Socheong (and also from elsewhere on the west coast: e.g. Moores and Moores 2005) far exceed those traced by Park (2002), who listed one specimen and no sight records from Gyeonggi province, and only three sight records (seven individuals) from three other provinces in South Korea. Tomek (2002) traced at least 17 records between 4 May and 1 October in DPRK while J. W. Duckworth (*in litt.* 2006) found the species to be common, and seasonally abundant, on passage in south-central DPRK during 1999–2004.

JAPANESE WHITE-EYE *Zosterops japonicus*

Recorded on seven dates: four in spring (one on 30 May 2003, six on 26 April 2004, three on 29 April 2004 and two on 3 May 2005, the last by K. Mochizuki *in litt.* 2005) and three dates in autumn, perhaps involving two individuals, between 8 and 13 Nov 2004. While several were not identified to subspecies, all of the spring individuals were identified as the subspecies *Z. j. simplex*, as was one individual photographed in November 2004 (based on e.g. pale, clean-looking underparts and yellowish forehead).

Park (2002) listed two specimens from Gyeonggi province (from March 1959) and two sight records (both in December), as well as numerous specimens and sight records from four other provinces, while Tomek (2002) rejected the only two records in the literature for DPRK.

SPOTTED BUSH WARBLER *Bradypterus thoracicus*

One individual of the taxon *B. (t.) davidi* (probably best considered a distinct species: David's Bush Warbler *B. davidi* [Round and Loskot 1995]), was seen in song on 19 May 2004.

Park (2002) listed one previous record for South Korea (two *B. [t.] davidi* collected on 28 May 2000 in Gyeonggi province) while Tomek (2002) traced four records for DPRK, where she considered it a 'scarce breeding species'.

RUSTY-RUMPED WARBLER *Locustella certhiola*

This migrant was not uncommon, especially in spring, with records on 21 dates in spring between 14 May and

3 June (although there was no coverage after this period), and on 16 dates in autumn between 4 September and 4 October. The highest counts in spring coincided with inclement weather in mid-late May, with e.g. >45 on 17 May 2004 and 30 on 22 May 2005, while in autumn the highest count was four on 20 September 2004.

Park (2002) listed ten specimens and one sight record from Gyeonggi province and five further sight records, all from Jeollanam province, while Duckworth (2006) reported that the species has been seen in seven localities in DPRK.

MIDDENDORFF'S WARBLER *Locustella ochotensis*

At least five records, with seven on 30 May 2003 the only spring record, and four further records of singles in autumn on 26 September 2003, 5 September 2004, 20 September 2004, and 4 October 2004.

Park (2002) listed eight specimens from Gyeonggi province, as well as seven specimens and two sight records (five individuals) from three other provinces, while Tomek (2002) listed three records from DPRK.

PLESKE'S WARBLER *Locustella pleskei*

Vulnerable. One seen well on 20 August 2004, with identification based e.g. on the very large bill, the more strongly marked facial pattern than typical in Middendorff's Warbler, the lack of streaking on the upperparts, and the generally cold plumage tones.

Park (2002) listed six specimens from Gyeonggi province and sight records and specimens from five other provinces. It has been reported breeding in at least four provinces (NM unpublished data), and there are many records from the south-west (e.g. Anon. 2003). Tomek (2002) included only one record for DPRK.

GRAY'S WARBLER *Locustella fasciolata*

Recorded on 12 dates in spring between 20 May and 4 June (with no coverage beyond this date), and on at least five dates in autumn, with singles observed between 22 August and 3 October. In spring, highest counts by year were >20 on 31 May 2003, nine on 1 June 2004, and four on 22 May 2005. This is a rather skulking species, most often located by song in spring when it can occasionally be very vocal (*contra* Cramp 1992).

Park (2002) listed eight specimens from Gyeonggi province, as well as sight records or specimens from three other provinces, while Duckworth (2006) added one further record to the five listed by Tomek (2002) for DPRK.

PADDYFIELD WARBLER *Acrocephalus agricola*

One was seen on 5 October 2004. Views were brief (only c.20 seconds in total) but unimpeded and at close range in excellent light. In direct comparison with Black-browed Reed Warbler *A. bistrigiceps*, it appeared pale, lacking rusty tones on both the underparts and upperparts, showed darker-centred tertials, and had a long supercilium extending well to the rear of the eye, contrasting moderately with a darkish sub-lateral crown-stripe. The primary projection was rather pronounced beyond the lowest tertial, the tail appeared comparatively long, and the bill moderately strong, with an obvious dark tip.

The species was not listed by Lee *et al.* (2000), Park (2002) or Tomek (2002). The first record for the Korean peninsula was one photographed on Hong Island on 8

April 2004 (Park Jong-Gil *in litt.* 2004, documented with photographs on the internet).

MANCHURIAN REED WARBLER *Acrocephalus tangorum*
Vulnerable. This taxon was treated as conspecific with Paddyfield Warbler *A. agricola* by Inskipp *et al.* (1996), but separated following e.g. BirdLife International (2001). One was poorly photographed on 20 October 2002 by Kim Dong-Won (*in litt.* 2003). Identification (by NM) of this individual in the photograph was based on the very strong rufescent tones to the plumage, and on the proportionately large bill having a completely unmarked lower mandible.

The species was not listed by Lee *et al.* (2000), Park (2002) or Tomek (2002). The first record for the Korean peninsula was one photographed on Gageo Island on 27–28 October 2000 (NM, unpublished, documented with photographs on the internet).

THICK-BILLED WARBLER *Acrocephalus aedon*

A rather skulking but sometimes vocal migrant (as on other west coast islands in South Korea: e.g. Moores and Moores 2004a, 2005), noted on 13 dates in spring and on 14 in autumn. In spring, records were from 17 May to 2 June (with no coverage on the island after 4 June in any of the three years), with highest counts each year of two on 27 May 2003, five on 17 May 2004, and 15 on 22 May 2005. In autumn, it was noted between 18 August and 5 September by NM, and perhaps unexpectedly (based on the pattern of previous records in South Korea), between 22 September and 3 October by F. Crystal (*in litt.* 2005). The highest counts each year in autumn were six on 2 September 2003, three on 21 August 2004, and four on 3 October 2005 (F. Crystal *in litt.* 2005).

Park (2002) listed only one sight record from Gyeonggi province (17 June 2001) and specimens or sight records from two other provinces, while Duckworth (2006) described it as 'rather scarce' in inland DPRK.

TICKELL'S LEAF WARBLER *Phylloscopus affinis*

Three records, involving either three or possibly four individuals. All called insistently, and all appeared to show slight plumage differences. The first individual was on 19 May 2005 in the far south-west of the island, when it was photographed well. On 21 May, two were found c.1.5 km to the east. The first was especially vocal, and was watched feeding very actively in the open, moving east up the island with other warblers. The second was found ten minutes later, 300 m to the west, skulking in an overgrown stream. Both were believed to show plumage differences from both the 10 May individual and also from each other (including plumage tones of both underparts and upperparts and details of the supercilium and lores). On 22 May 2005, one was then well watched and very poorly photographed in a wooded gully, remaining until at least 24 May. Although believed different from all three of the previous individuals, its location (only 50 m west of where the second of the 21 May birds had been), the evident rarity of the species in Korea, and the effect of different light conditions on perception of plumage tones, means that it is impossible to confirm this as a separate, fourth individual.

As it is not listed by Lee *et al.* (2000), Park (2002) or Tomek (2002), these records constitute the first, second and third records for the Korean peninsula.

HUME'S WARBLER *Phylloscopus humei*

Recorded/claimed eight times in spring (c.17 individuals, including by multiple observers) between 16 April and 23 May, and on eight occasions (eight individuals) in autumn between 15 October and 11 November. The vast majority of the records given here were based on the combination of: call (at least two individuals, on 19 May 2005 and on 7 November 2004, gave very distinctive *hwseoo* or *su-oo* calls, perhaps suggestive of nominate *P. humei*, while others gave a call rather similar to the anxiety call of *P. inornatus*, only with even less sibilance: a *dsiit* or *piit*, perhaps suggesting *P. h. mandellii*); plumage (buff-wash to the fore-supercilium, paler ear-coverts than Yellow-browed Warbler *P. inornatus*, greyer tone to the upperparts, and greyer centres to the tertials); darker coloured bare-parts; and behaviour, with (presumed) Hume's often appearing slightly sluggish and heavy when compared to the much more abundant Yellow-browed Warbler. Until identification criteria are better established, through for example ringing of *P. humei*-type birds in South Korea, identification of most individuals should be considered tentative.

It was not listed by Lee *et al.* (2000), Park (2002) or Tomek (2002). The species was first reported in South Korea, supported by a photograph taken on Eocheong Island on 30 October 2002 (NM, unpublished data, documented with a photograph on the internet).

CHINESE LEAF WARBLER *Phylloscopus yunnanensis*

(Listed as *P. sichuanensis* in Inskipp *et al.* 1996, but corrected to *P. yunnanensis* following Martens *et al.* 2004.) One was watched at close range through binoculars for a total of 30 seconds or more over five minutes, in a mixed flock of feeding *Phylloscopus* spp. warblers on 16 October 2004. Identification, based on direct comparison with Yellow-browed and Pallas's Leaf Warblers *P. proregulus*, was based on structure (rather intermediate between these two species) and especially on the head pattern, which was striking in that the forehead was broadly but dully coloured green, so the bird, while showing two wing-bars and a rather Pallas's-type rump, appeared to lack a median crown-stripe during head-on views. Instead, the median crown-stripe was greyish, apparently starting approximately above or even a little behind the eye, becoming broader and yellow-whitish to the rear to form more of a pale nape-patch: somewhat suggestive of Eastern Crowned Warbler *P. coronatus*. In addition, the supercilium was yellowish-white and lacked strong amber tones; the ear-coverts were very pale; the dark eye-stripe was square-ended or even curled upwards to the rear, without a hint of a downward hook or pale rear ear-covert spot; the underparts were dull off-white with some very faint breast streaking, duller than the Pallas's Warbler also present; the wing, while showing two wing-bars, lacked the bright appearance and strong contrast of Pallas's, with the tertials appearing pale-tipped but otherwise rather plain (somewhat like Hume's Warbler); the rump appeared paler than typical in Pallas's; and the bill appeared longer and heavier than Pallas's, and in repeated views against a dark green and brown background was clearly brownish-black (not black), with an obviously paler bill-base, rather like Yellow-browed Warbler. These features combined created a surprisingly distinctive impression, believed beyond the range of variation of Pallas's Warbler and closely matching descriptions of

Chinese Leaf Warbler in Martens *et al.* (2004). Calls considered to resemble Chinese Leaf Warbler (a single insistent, repeated, bout of harsh Pallas's-type calls) were heard briefly and poorly in the same area before this bird was seen, but no calls were heard during or after the period of observation.

The species was not listed by Lee *et al.* (2000), Park (2002) or Tomek (2002). This constitutes the first record for the Korean peninsula.

GREATER SHORT-TOED LARK *Calandrella brachydactyla*
Recorded on nine dates in spring, with records between 14 April and 20 May, and a peak count of three on 4 May 2004 (K. Steiof *in litt.* 2004).

Park (2002) listed one sight record for Gyeonggi province and only four more sight records in two other provinces. However, it has recently proved to be a fairly scarce but regular migrant in South Korea, with most records in April, especially on south-western islands (e.g. Anon. 2003, Moores and Moores 2003, 2004a, 2005). Tomek (2002) traced only one record from DPRK, on 17 April 1929.

RUSSET SPARROW *Passer rutilans*

Three singles, on 27–28 May 2003, 2 June 2004 and 2 October 2005 (last by F. Crystal *in litt.* 2005).

Park (2002) listed no specimens or sight records for Gyeonggi province, with records confined to four other provinces in South Korea (and breeding on Ulleung Island in the East Sea), while Tomek (2002) traced four records for DPRK.

CITRINE WAGTAIL *Motacilla citreola*

One on 6 October 2004.

Park (2002) noted only five records for South Korea, all from Jeollanam province and Jeju in the south-west, including the first record in 1999. Tomek (2002) traced no records for DPRK.

RICHARD'S PIPIT *Anthus richardi*

Recorded 21 times in spring (between 27 April and 2 June), and at least 55 times in autumn between 18 August and 30 October, with one further record on the exceptionally late date of 11 November, in 2004.

Total numbers are hard to estimate, because most records were of birds flying over, with small numbers sometimes remaining for several days. Highest day counts by year in spring were two on 29 May 2003, six or more on 14 May 2004 and eight on 18 May 2005, with an apparent concentration of records in mid-May. In autumn, highest counts by year were 15 on 26 September 2003, five on 21 August 2004, and 13 on 29 September (the last by F. Crystal *in litt.* 2005).

Park (2002) listed four specimens and only six sight records (11 individuals) from Gyeonggi province, as well as sight records from three other provinces, while Duckworth (2006) reviewed the species's status in DPRK, concluding that it was probably a regular migrant, although Blyth's Pipit *Anthus godlewskii* could not be ruled out for most records.

BLYTH'S PIPIT *Anthus godlewskii*

Nine or ten records, all of single birds, with only two in spring (26 May 2003 and 1 June 2004), and the remainder between 19 August and 26 September.

Based on the pattern of records on Gageo Island (NM unpublished data), and on other west coast islands (e.g. Moores and Moores 2003, 2004a, 2005), this species appears to be most regular between mid-April and mid-May in South Korea. The limited coverage in April and the first half of May on Socheong, compared with rather more extensive coverage by observers experienced with the species in September, needs to be considered when interpreting the records of this species. Park (2002) listed three specimens (two in June and one in September) from Gyeonggi province based on Austin (1948), and five sight records (at least eight individuals), all from Jeollanam province between 30 April and 19 May. Duckworth (2006) reviewed the species's status in DPRK, concluding that no records were adequately documented.

TREE PIPIT *Anthus trivialis*

One on 2 October 2003 (M. Schweizer *in litt.* 2003).

Park (2002) listed four records for South Korea, all since 2000, and all in Jeollanam province. Tomek (2002) traced no records for DPRK.

PECHORA PIPIT *Anthus gustavi*

A regular migrant (as elsewhere in coastal South Korea: e.g. Moores and Moores 2003, 2004a, 2005, Moores 2004), most often identified by call when flying over. In spring, it was recorded on 19 dates between 27 April and 3 June, and in autumn on 43 dates, between 21 August and 11 November (the last, a single on 11 November 2004, being the only record after 18 October, with the exception of one found long dead on 13 November 2004). Highest counts in spring include five on 15 May 2004, 22 on 17 May 2005, and >10 on 19 May 2005, while in autumn they included five on 25 September 2003, at least six on 20 September 2004, and eight on 24 September 2005, with records each year more or less regular until mid-October. At several sites in South Korea, based on personal observations and on information provided to *Birds Korea*, there appear to be two main periods of Pechora Pipit migration in both spring ('early spring', from c.25 April to 5 May, and 'late spring', from 15 May to 5 June) and in autumn ('early' from 25 August to 5 September and 'late', from 15 September to the end of October). Considering the timing of migration, the description of the nominate subspecies given by Alström and Mild (2003), and the apparent differences noted between earlier migrants (when seen well, typically showing e.g. a rustier rump, a more diffuse facial pattern and buffier-washed underparts) and later migrating individuals (typically appearing bolder, larger and paler), this might well be a product of different migration strategies employed by southern-nesting *A. g. menzibieri* (which is considered likely to migrate earlier, both in spring and autumn), and more northern-nesting nominate *A. g. gustavi* (which is considered likely to migrate through the Korean peninsula later both in spring and autumn). There was one 'early' spring record, one on 27 April 2004, and six 'early' autumn records (two on 1 September 2003, one on 3 September 2003, one on 5 September 2003, two on 21 August 2004, one on 23 August 2004, and one on 5 September 2004), with the vast majority of records falling in 'late' spring and 'late' autumn.

Park (2002) listed 14 specimens from Gyeonggi province (none identified unambiguously to subspecies),

but no sight records, as well as sight records and specimens (including two identified as *A. g. menzibieri*) from four other provinces. Duckworth (2006) considered it a regular migrant through survey sites in south-central DPRK, and much overlooked previously in the country.

RED-THROATED PIPIT *Anthus cervinus*

A regular spring and especially autumn migrant, recorded on six dates in spring (all April 2004), and on 25 dates in autumn, between 18 September and 25 October. Highest autumn counts by year were eight on 3 October 2003, five on 19 September and again on 22 September 2004, and 20 on 3 October 2005 (the last by F. Crystal *in litt.* 2005).

Park (2002) listed 22 specimens and two sight records from Gyeonggi province, with specimens and sight records from four other provinces, while Duckworth (2006) considered it a regular migrant through the DPRK.

BUFF-BELLIED PIPIT *Anthus rubescens*

A regular migrant, most often seen (and heard) in flight. In spring, it was recorded only on three consecutive dates (two on 14 and 15 April 2004, and one on 16 April 2004), possibly because survey dates did not coincide with the peak of likely spring migration. In autumn, it was recorded on 30 dates between 18 September (an unexpectedly early date as typically first recorded on western Korean islands at the beginning of October: NM unpublished data) and 13 November, with the highest counts by year being ten on 30 October 2003, 35 on 14 October 2003 and ten on 22 October 2005. All grounded migrants were checked carefully to confirm identification as *A. r. japonicus* (rather than the nominate *A. r. rubescens* or Water Pipit *A. spinoletta*). Although the call is rather similar to that of Water Pipit, it is distinct enough for the vast majority of records here to be assigned confidently to *A. r. japonicus*. There were no records of Water Pipit.

Park (2002) listed 21 *A. r. japonicus* specimens and three sight records of *A. rubescens* (subspecies unknown) from Gyeonggi province with sight records from six other provinces in South Korea. He also included one record of *A. r. pacificus*, collected in April 1954 in the south-east of the country. Duckworth (2006) reassessed records of this species and/or Water Pipit in DPRK, a species-pair he did not distinguish, which in spring he recorded most often between March and mid-April, a period with rather poor observer coverage on Socheong.

SCALY-BREASTED MUNIA *Lonchura punctulata*

A group of seven was photographed in the south-west of the island on 27 October 2003 following gale-force southerly winds. The flock was searched for intensively without success the next day, although winds remained strong throughout. At dawn on 29 October 2003, four (more) were found and photographed in the east of the island.

As this species is apparently not at all usual in captivity on the Korean peninsula, and release of caged passerines is also extremely unusual, it can be assumed that the birds were of natural origin. This assumption is strongly supported by the discovery of a further flock of four photographed on Hong Island 400 km to the south on 28 October 2003 (Anon. 2003), this being especially remarkable considering the lack of any other known observer activity on the west coast between these two

remote points during this period. Considering obvious plumage differences and the Hong Island record, it appears likely that the two Socheong flocks contained different individuals and were perhaps part of a rather larger storm-drifted movement of the species across the Yellow Sea into Korea. As the species is not listed by Lee *et al.* (2000), Park (2002) or Tomek (2002), the record on 27 October 2003 (documented with photographs on the internet) represents the first for the Korean peninsula.

COMMON ROSEFINCH *Carpodacus erythrinus*

A regular migrant, recorded on 11 dates in spring between 17 May and 2 June, and on 48 dates in autumn between 19 August and 30 October. The highest spring counts by year were one in late May 2003, two on 18 May 2004, and four on 22 May 2005, while highest counts in autumn by year include ten on 26 September 2003, 12 on 8 September 2004 and 58 (including a single flock of 20) on 19 September 2005 (the last by F. Crystal *in litt.* 2005).

Park (2002) listed three specimens but no sight records from Gyeonggi province, with sight records or specimens from three other provinces, while Duckworth (2006) reappraised its status in DPRK, concluding that it is a regular passage migrant there as well as a breeding species.

WHITE-WINGED CROSSBILL *Loxia leucoptera*

An adult male was seen in flight in a flock of ten Common Crossbills *L. curvirostra* on 23 October 2005. Although views were brief (only c.5 seconds) they were at close to medium-range, in excellent light, when the smaller size, very distinct, broad and white wing-bars and the more intense red plumage (in direct comparison with Common Crossbills) were all very striking.

Citing Won (1970), Park (2002) listed only one previous national record for South Korea: two together, collected, on 15 February 1969 in Gyeongsangnam province. Tomek (2002) traced no records for DPRK. However, she overlooked the record (of a stuffed bird in an exhibition) of Mauersberger (1981: 24), which presumably involved a wild-taken bird in northern Korea.

JAPANESE GROSBEAK *Eophona personata*

Three records in spring (one on 19 May 2004; two on 18 May 2005; at least three on 22 May 2005) and two in autumn, with 25 on 11 November 2004 (after a severe thunderstorm and strong south-easterly winds) declining to 21 the next day and ten by 13 November, plus four on 30 October 2005.

Park (2002) listed three specimens and two sight records from Gyeonggi province, including the national highest count of 85 at Gwangneung on 6 December 1997, with 11 there on 6 February 1998, as well as sight records or specimens from four other provinces in South Korea. Duckworth (2006) added approximately ten records to the seven or eight listed by Tomek (2002) for DPRK.

PINE BUNTING *Emberiza leucocephalos*

Singles were seen and heard on 13 November 2004 and 23 October 2005.

Park (2002) listed eight specimens and two sight records from Gyeonggi province (including a flock of 40 on 2 February 1992), and sight records from Jeollanam province and Cheorwon, Gangwon province (a flock of 30 on 18 January 1996), while Duckworth (2006) and Tomek (2002) listed about ten records in total for DPRK.

LITTLE BUNTING *Emberiza pusilla*

Recorded on 26 dates in spring between 22 March and 28 May, and on 50 dates in autumn between 18 September and 12 November. The highest day counts by year in spring were three on 28 May 2003, 20 on 26 April 2004, and eight on 17 May 2005, and in autumn, 20 on 30 October 2003, ten on 18 October and again on 1 November 2004, and 12 on 24 October 2005.

Park (2002) listed five specimens and six sight records (involving 38 individuals) from Gyeonggi province, as well as sight records from six other provinces in South Korea, while Tomek (2002) listed probably eight records for DPRK, with the most recent in 1965, and Duckworth (2006) listed five more, in April, May and November.

YELLOW-BROWED BUNTING *Emberiza chrysophrys*

Recorded on 11 dates between 28 April and 22 May in spring (when often seen singly or in pairs), and on 56 dates in autumn between 23 August and 1 November. In autumn, especially in September, the species is occasionally involved in larger weather-related movements of buntings. The highest counts by year were seven on 24 September 2003, >125 on 20 September 2004, and 30 on 16 September 2005 (the last by F. Crystal *in litt.* 2005).

Park (2002) listed five specimens and two sight records (involving nine birds) from Gyeonggi province, as well as sight records from two other provinces. Tomek (2002) traced only four past DPRK records, the most recent in 1958, with Duckworth (2006) adding a further 11–12 recent records.

YELLOW-BREASTED BUNTING *Emberiza aureola*

Near Threatened. Recorded on at least 18 dates in spring between 28 April and 1 June (with peak counts by year of one on 26 May 2003, 25 on 14 May 2005, and 20 on 19–20 May 2005), and on 14 dates in autumn (with peak counts by year of 13 on 3 October 2003, five on 20 September 2004, and two on 2 and 26 October 2005).

Park (2002) listed 102 specimens from Gyeonggi province alone, with most taken between 1961 and 1964 in late September and October, and six sight records (involving 16 individuals) from there, with sight records (and no specimens) from five other provinces, including a maximum count of 60 on Gageo Island on 7 May 2000. Tomek (2002) traced multiple records in DPRK, concluding that it was a passage migrant and a 'probable breeding species in northern provinces' (at least in the first half of the twentieth century); it is still regular on passage (J. W. Duckworth *in litt.* 2006).

YELLOW BUNTING *Emberiza sulphurata*

Vulnerable. One on 26 April 2004, two on 27 April 2004 and one on 5 May 2005 (the last by K. Mochizuki *in litt.* 2005).

Park (2002) listed two specimens from Gyeonggi province (both in October, and listed in Austin 1948) and sight records from three other provinces in South Korea, while Tomek (2002) traced only 1–2 records in DPRK, the most recent in 1987.

GREY BUNTING *Emberiza variabilis*

One or two (one of which was photographed) on 11 November 2004, following a severe thunderstorm and strong south-easterly winds on 10 November.

Park (2002) listed specimens or sight records from the three southern provinces of South Korea (Jeollanam, Gyeongsangnam and Jeju) while Tomek (2002) traced no records for DPRK.

OCHRE-RUMPED BUNTING *Emberiza yessoensis*

Near Threatened. Two records, both singles, in spring (15 May 2004 and 18 May 2005), and four records in autumn: singles on 30 October 2004, 23 October 2005, 26–28 October 2005; and two on 29 October 2005.

Park (2002) listed nine specimens and two sight records from Gyeonggi province (on Ganghwa Island in January and February, totalling 19 individuals), as well as sight records from two other provinces. Tomek (2002) traced only 7–9 records, with Duckworth (2006) adding three more DPRK records between 23 October and 12 November.

LAPLAND LONGSPUR *Calcarius lapponicus*

Three records involving four individuals, all between 5 November and 12 November 2004. Suitable habitat on the island is very limited for this species.

Park (2002) listed 11 specimens and one sight record (of a flock of 60) from Gyeonggi province, with sight records from three other provinces in South Korea (including a single count of 1,000, in Jeollabuk province in December 2001), while Tomek (2002) traced only six records, with a further eight listed for DPRK by Duckworth (2006).

DISCUSSION

Between October 2002, when the first bird surveys were conducted, and October 2005, at least 298 species of bird were recorded on or from Socheong Island. By comparison, Lee *et al.* (2000) traced records of only 450 species of bird for the whole of the Korean peninsula. Of the total recorded at Socheong, only seven species (Oriental Turtle Dove *Streptopelia orientalis*, Black-tailed Gull *Larus crassirostris*, Temminck's Cormorant, Pelagic Cormorant *Phalacrocorax pelagicus*, Large-billed Crow *Corvus macrorhynchos*, Great Tit *Parus major* [ssp. *minor*], and Brown-eared Bulbul *Ixos amaurotis*) were recorded on 120 or more of the 130 days of observation by the author, and even these species also showed significant changes in the number recorded, either daily or seasonally. For example, Oriental Turtle Dove was not recorded at all in three days of observations in mid-December 2003, but 175 were counted on 6 October 2005. Evidently, all species recorded up to now on Socheong Island are either partially or completely migratory.

While Socheong is especially well located for observation of migrant birds, several related factors warrant consideration when interpreting the records presented above, especially habitat, weather, the incomplete coverage so far, and observer bias.

Socheong Island has a range of habitats but the quality of several is rather poor. There is very little freshwater or intertidal wetland, and no *Phragmites* reedbeds. Partly as a result, few larger waterbird species have been recorded; some of those that have were either flying over (e.g. Black Stork) or in atypical habitat (e.g. Black Bittern). There are few open areas of short-cropped grassland or undisturbed arable land; most vegetable plots are heavily disturbed and treated with insecticide. Largely as a result,

several species of lark and pipit were recorded mostly flying over. Habitat quality and its relationship with numbers of some other species (e.g. some buntings) is less clear.

Weather conditions are extremely influential on bird migration and observation of that migration on Socheong Island, although analysis of weather systems and migration is beyond the scope of this paper. Spring migration involves a sea crossing of at least 200 km (from the Shandong Peninsula to Socheong Island), and in many cases of perhaps 800 km (from islands off the Chinese coast near Shanghai), so that westerly and north-westerly winds tend to produce the largest numbers of warblers, which often move across the island quickly, while overshooting southern migrants tend to arrive in south-westerly winds, and sometimes remain for longer (e.g. Grey Bushchat, Black Drongo). In autumn, on the other hand, migrants moving south-west or south out of the Korean peninsula reach Socheong by a short sea crossing, but then need to cross at least 200 km of open sea to the west (resulting in birds circling the island in autumn much more often than in spring, especially in hazy conditions).

In addition, the largest numbers of individuals of many species in both spring and autumn appear as weather fronts pass, especially those that produce heavy overnight rain. For example, rain on 29 May and early on 30 May in 2003 coincided with highest counts so far of late spring migrants like Tiger Shrike *Lanius tigrinus* (35 individuals) and Gray's Warbler (>20 individuals), and with Korea's first record of Chinese Thrush; an evening rain shower on 21 September 2005 coincided with an arrival of 3,000 Asian House Martins (75 times higher than any previously published day count of the species in South Korea, and 30 times higher than any other day count on Socheong); and a severe thunderstorm and Beaufort force 7 south-easterly winds on 10 November and until dawn of 11 November 2004 resulted in an exceptional arrival of e.g. at least 17 Japanese Thrushes, an exceptionally late Pechora Pipit, Korea's northernmost record of Grey Bunting and the Korean peninsula's first autumn record of Japanese Robin. It can be assumed from such weather-related arrivals, and by the comparatively low numbers of grounded migrants often found in calm and hazy weather, that in certain weather conditions much larger numbers of birds pass over or near the island than are recorded on it. It is also probable that while some species (on the available data presented above) appear to be most regular within a certain week, month or months, this apparent pattern is likely to have been strongly influenced by weather conditions experienced in 2003, 2004 and 2005, because weather events can reveal (e.g. with Rusty-rumped Warbler: see above), or perhaps distort, underlying migration patterns. Extreme weather events also produce more out-of-season and unexpected records than calm and clear weather at the same time of year, and they might, over time, result in an increasing number of exceptionally early records of overshooting migrants in spring, or late migrants in autumn.

Coverage on Socheong Island has been limited up to now in other ways too. The island is too large and densely vegetated to be covered adequately in a single day (especially by a single observer), so that day-counts for some species will be too low, while other species will have been missed completely. This has been

demonstrated clearly on the 15 or so days in which several observers were present and the species and their numbers were discussed between observers: no observer saw all individuals or all species recorded on such days. In addition, surveying has not yet been conducted in all months (there has been none in January, February or July), and on only a few dates in three others (i.e. no coverage in March before 22 March; no coverage in June after 4 June; and coverage for only three days in December). This paper is therefore based on only 130 days' survey, spread across nine months of the year by the author, concentrated at times of spring and autumn migration, with counts on five days in March, nine in April, 22 in May, seven in June, six in August, 25 in September, 39 in October, 14 in November and three in December. This is supplemented by c.42 days of records by other observers in the same months (some dates overlapping with NM's), as detailed above. As a result of the timing of these observations, some early spring migrants (such as Buff-bellied Pipit) are probably greatly under-recorded, while dates for several species probably extend well beyond the 4 June coverage. Falls of migrants can still occur until mid-June in coastal Hebei (J. Hornskov *in litt.* 2004); and observations on Eocheong Island in 2005 revealed the presence there of species such as Arctic Warbler *Phylloscopus borealis* and Black Drongo as late as 7 June (NM unpublished data). This is perhaps most significant in spring for very late-migrating species like Gray's Warbler (which might occur in significant numbers outside the dates of survey). In the same way, some late movements of migrants in autumn probably fall outside the dates covered up to now, and some species can be expected to occur beyond the latest autumn dates specified in the text. Clearly, as the records in this paper derive from patchy coverage of only three springs and four autumns, it would be unwise to interpolate too much from them on timing of a given species's migration.

Finally, coverage by different observers is also likely to create some element of inconsistency, with different areas checked, and different styles of recording migrants flying over. Based on prolonged personal observation from three fixed points, diurnal migrants in spring often move rapidly east in direct flight (such as Grey-faced Buzzard) or north-east up the island, moving from one belt of vegetation to the next (e.g. flycatchers), while in autumn many pipits and raptors move south-west down the island at dawn, returning within 30 minutes or so, to move back east up the island, and then away north-west depending on the visibility. In such circumstances it is especially easy to double- (or even triple-!) count certain species (especially raptors, which often circle the island for an hour or more), and some more vocal diurnal migrants like Chestnut-flanked White-eye and Common Rosefinch.

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APPENDIX

Bird species recorded on Socheong Island, South Korea, during 2002–2005.

Species	Status	Species	Status
JAPANESE QUAIL <i>Coturnix japonica</i>	B 1	WHITE-BELLIED GREEN PIGEON <i>Treron sieboldii</i>	C 1
COMMON PHEASANT <i>Phasianus colchicus</i> (of unknown origin; seen only in one autumn)	C 1	WHITE-BREASTED WATERHEN <i>Amaurornis phoenicurus</i>	C 1
HAZEL GROUSE <i>Tetrastes bonasia</i> (of unknown origin; seen only in one autumn)	C 1	RUDDY-BREASTED CRAKE <i>Porzana fusca</i>	C 1
BEAN GOOSE <i>Anser fabalis</i>	C 1	BAND-BELLIED CRAKE <i>Porzana paykullii</i>	C 1
GREATER WHITE-FRONTED GOOSE <i>Anser albifrons</i>	C 1	COMMON MOORHEN <i>Gallinula chloropus</i>	C 1
RUDDY SHELDUCK <i>Tadorna ferruginea</i>	C 1	COMMON COOT <i>Fulica atra</i>	C 1
MANDARIN DUCK <i>Aix galericulata</i>	C 1	EURASIAN WOODCOCK <i>Scolopax rusticola</i>	C 1
FALCATED DUCK <i>Anas falcata</i>	C 1	LATHAM'S SNIPE <i>Gallinago hardwickii</i>	C 1
EURASIAN WIGEON <i>Anas penelope</i>	C 1	PINTAIL SNIPE <i>Gallinago stenura</i>	B 1
MALLARD <i>Anas platyrhynchos</i>	C 1	SWINHOB'S SNIPE <i>Gallinago megala</i>	C 1
SPOT-BILLED DUCK <i>Anas poecilorhyncha</i>	B 1	COMMON SNIPE <i>Gallinago gallinago</i>	C 1
NORTHERN SHOVELER <i>Anas clypeata</i>	C 1	BAR-TAILED GODWIT <i>Limosa lapponica</i>	C 1
NORTHERN PINTAIL <i>Anas acuta</i>	C 1	LITTLE CURLEW <i>Numenius minutus</i>	C 1
COMMON TEAL <i>Anas crecca</i>	C 1	WHIMBREL <i>Numenius phaeopus</i>	C 1
COMMON POCHARD <i>Aythya ferina</i>	C 1	EURASIAN CURLEW <i>Numenius arquata</i>	C 1
BLACK SCOTER <i>Melanitta nigra</i>	B 2	EASTERN CURLEW <i>Numenius madagascariensis</i>	C/B 2
WHITE-WINGED SCOTER <i>Melanitta fusca</i>	C 1	SPOTTED REDSHANK <i>Tringa erythropus</i>	C 1
COMMON GOLDENEYE <i>Bucephala clangula</i>	C 1	MARSH SANDPIPER <i>Tringa stagnatilis</i>	C 1
RED-BREASTED MERGANSER <i>Mergus serrator</i>	B 2	COMMON GREENSHANK <i>Tringa nebularia</i>	C 1
COMMON MERGANSER <i>Mergus merganser</i>	C 1	GREEN SANDPIPER <i>Tringa ochropus</i>	C 1
YELLOW-LEGGED BUTTONQUAIL <i>Turnix tanki</i>	B 1	WOOD SANDPIPER <i>Tringa glareola</i>	B 2
EURASIAN WRYNECK <i>Jynx torquilla</i>	B 1	TEREK SANDPIPER <i>Xenus cinereus</i>	C 1
RUFIOUS-BELLIED WOODPECKER <i>Dendrocopos hyperythrus</i>	C 1	COMMON SANDPIPER <i>Actitis hypoleucos</i>	B 2
GREAT SPOTTED WOODPECKER <i>Dendrocopos major</i>	C 1	GREY-TAILED TATTLER <i>Heteroscelus brevipes</i>	C 1
COMMON HOPOE <i>Upupa epops</i>	B 1	SANDERLING <i>Calidris alba</i>	C 1
DOLLARBIRD <i>Eurystomus orientalis</i>	B 2	RED-NECKED STINT <i>Calidris ruficollis</i>	C 1
COMMON KINGFISHER <i>Alcedo atthis</i>	B 1	GREATER PAINTED-SNIPE <i>Rostratula benghalensis</i>	C 1
BLACK-CAPPED KINGFISHER <i>Halcyon pileata</i>	B 1	EURASIAN OYSTERCATCHER <i>Haematopus ostralegus</i>	C 1
HODGSON'S HAWK CUCKOO <i>Hierococcyx fugax</i>	C 1	PACIFIC GOLDEN PLOVER <i>Pluvialis fulva</i>	C 1
INDIAN CUCKOO <i>Cuculus micropterus</i>	C 1	GREY PLOVER <i>Pluvialis squatarola</i>	C 1
EURASIAN CUCKOO <i>Cuculus canorus</i>	B 1	LITTLE RINGED PLOVER <i>Charadrius dubius</i>	C 1
ORIENTAL CUCKOO <i>Cuculus saturatus</i>	B 1	KENTISH PLOVER <i>Charadrius alexandrinus</i>	C 1
LESSER CUCKOO <i>Cuculus poliocephalus</i>	C 1	GREY-HEADED LAPWING <i>Vanellus cinereus</i>	C 1
WHITE-THROATED NEEDLETAIL <i>Hirundapus caudacutus</i>	B 2	ORIENTAL PRATINCOLE <i>Glareola maldivarum</i>	C 1
FORK-TAILED SWIFT <i>Apus pacificus</i>	B 4	SOUTH POLAR SKUA <i>Catharacta maccormicki</i>	C 1
HOUSE SWIFT <i>Apus affinis</i>	C 1	POMARINE JAEGER <i>Stercorarius pomarinus</i>	C 2
BARN OWL <i>Tyto alba</i> / GRASS OWL <i>Tyto capensis</i>	C 1	PARASITIC JAEGER <i>Stercorarius parasiticus</i>	C 1
ORIENTAL SCOPS OWL <i>Otus sunia</i>	B 1	BLACK-TAILED GULL <i>Larus crassirostris</i>	A 4 (N)
COLLARED SCOPS OWL <i>Otus bakkamoena</i>	C 1	MEW GULL <i>Larus canus</i>	C 1
LITTLE OWL <i>Athene noctua</i>	C 1	SLATY-BACKED GULL <i>Larus schistisagus</i>	C 1
BROWN HAWK OWL <i>Ninox scutulata</i>	B 1	HEUGLIN'S GULL <i>Larus heuglini</i>	B 1
LONG-EARED OWL <i>Asio otus</i>	C 1	VEGA GULL <i>Larus vegae</i>	B 2
SHORT-EARED OWL <i>Asio flammeus</i>	C 1	YELLOW-LEGGED GULL <i>Larus (cachimans) mongolicus</i>	B 2
GREY NIGHTJAR <i>Caprimulgus indicus</i>	B 1	BLACK-HEADED GULL <i>Larus ridibundus</i>	C 1
ROCK PIGEON <i>Columba livia</i> (of unknown origin. Widespread feral species in South Korea; banded racing pigeons also observed)	C 1	BLACK-LEGGED KITTIWAKE <i>Rissa tridactyla</i>	B 4
JAPANESE WOOD PIGEON <i>Columba janthina</i>	C 1	ANCIENT MURRELET <i>Synthliboramphus antiquus</i>	C 2
ORIENTAL TURTLE DOVE <i>Streptopelia orientalis</i>	A 3	RHINOCEROS AUKLET <i>Cerorhinca monocerata</i>	C 1
RED COLLARED DOVE <i>Streptopelia tranquebarica</i>	C 1	OSPREY <i>Pandion haliaetus</i>	B 2
		ORIENTAL HONEY-BUZZARD <i>Pernis ptilorhyncus</i>	B 3
		BLACK KITE <i>Milvus migrans</i>	B 2
		WHITE-TAILED EAGLE <i>Haliaeetus albicilla</i>	C 1

Species	Status
CINEREOUS VULTURE <i>Aegypius monachus</i>	C 1
CRESTED SERPENT EAGLE <i>Spilornis cheela</i>	C 1
'EASTERN' MARSH HARRIER <i>Circus (aeruginosus) spilnotus</i>	C 1
HEN HARRIER <i>Circus cyaneus</i>	C 1
PIED HARRIER <i>Circus melanoleucos</i>	B 2
CHINESE SPARROWHAWK <i>Accipiter soloensis</i>	B 3
JAPANESE SPARROWHAWK <i>Accipiter gularis</i>	B 2
EURASIAN SPARROWHAWK <i>Accipiter nisus</i>	B 2
NORTHERN GOSHAWK <i>Accipiter gentilis</i>	B 2
GREY-FACED BUZZARD <i>Butastur indicus</i>	B 2
COMMON BUZZARD <i>Buteo buteo</i>	B 2
UPLAND BUZZARD <i>Buteo hemilasius</i>	B 1
GREATER SPOTTED EAGLE <i>Aquila clanga</i>	C 1/2
IMPERIAL EAGLE <i>Aquila heliaca</i>	C 1
COMMON KESTREL <i>Falco tinnunculus</i>	B 1
AMUR FALCON <i>Falco amurensis</i>	B 3
MERLIN <i>Falco columbarius</i>	C 1
EURASIAN HOBBY <i>Falco subbuteo</i>	B 2
PEREGRINE FALCON <i>Falco peregrinus</i>	A 1 (FY)
GREAT CRESTED GREBE <i>Podiceps cristatus</i>	B 2
HORNED GREBE <i>Podiceps auritus</i>	C 1
BLACK-NECKED GREBE <i>Podiceps nigricollis</i>	C 1
GREAT CORMORANT <i>Phalacrocorax carbo</i>	C 1
TEMMINCK'S CORMORANT <i>Phalacrocorax capillatus</i>	A 3 (BR?)
PELAGIC CORMORANT <i>Phalacrocorax pelagicus</i>	A 3 (BR?)
LITTLE EGRET <i>Egretta garzetta</i>	B 2
CHINESE EGRET <i>Egretta eulophotes</i>	C 1
GREY HERON <i>Ardea cinerea</i>	B 2
GREAT EGRET <i>Casmerodius albus</i>	B 1
INTERMEDIATE EGRET <i>Mesophoyx intermedia</i>	B 1
CATTLE EGRET <i>Bubulcus ibis</i>	B 2
CHINESE POND HERON <i>Ardeola bacchus</i>	B 1/2
LITTLE HERON <i>Butorides striatus</i>	B 1
BLACK-CROWNED NIGHT HERON <i>Nycticorax nycticorax</i>	B 2
JAPANESE NIGHT HERON <i>Gorsachius gotsagi</i>	C 1
YELLOW BITTERN <i>Ixobrychus sinensis</i>	C 1
VON SCHRENCK'S BITTERN <i>Ixobrychus eurhythmus</i>	C 1
BLACK BITTERN <i>Dupetor flavicollis</i>	C 1
BLACK STORK <i>Ciconia nigra</i>	C 1
LESSER FRIGATEBIRD <i>Fregata ariel</i>	C 1
RED-THROATED LOON <i>Gavia stellata</i>	C 1
BLACK-THROATED LOON <i>Gavia arctica</i>	C 1
PACIFIC LOON <i>Gavia pacifica</i>	C 1
YELLOW-BILLED LOON <i>Gavia adamsii</i>	C 1
STREAKED SHEARWATER <i>Calonectris leucomelas</i>	B 4
FLESH-FOOTED SHEARWATER <i>Puffinus carneipes</i>	C 1
SHORT-TAILED SHEARWATER <i>Puffinus tenuirostris</i>	C 1
FAIRY PITTA <i>Pitta nympha</i>	C 1

Species	Status
TIGER SHRIKE <i>Lanius tigrinus</i>	B 2
BULL-HEADED SHRIKE <i>Lanius bucephalus</i>	B 1 (N/FY)
BROWN SHRIKE <i>Lanius cristatus</i>	B 2
'STEPPE' GREY SHRIKE <i>Lanius (meridionalis) pallidirostris</i>	C 1
CHINESE GREY SHRIKE <i>Lanius sphenocercus</i>	C 1
EURASIAN JAY <i>Garrulus glandarius</i>	B 1
DAURIAN JACKDAW <i>Corvus dauuricus</i>	C 1
ROOK <i>Corvus frugilegus</i>	C 2
CARRION CROW <i>Corvus corone</i>	C 1
LARGE-BILLED CROW <i>Corvus macrorhynchos</i>	B 1 (BR?)
BLACK-NAPED ORIOLE <i>Oriolus chinensis</i>	B 2
BLACK-WINGED CUCKOO SHRIKE <i>Coracina melaschistos</i>	C 1
ASHY MINIVET <i>Pericrocotus divaricatus</i>	B 2
BLACK DRONGO <i>Dicrurus macrocercus</i>	B 2
ASHY DRONGO <i>Dicrurus leucophaeus</i>	C 1
SPANGLED DRONGO <i>Dicrurus hottentottus</i>	C 1
ASIAN PARADISE-FLYCATCHER <i>Terpsiphone paradisi</i>	C 1
JAPANESE PARADISE-FLYCATCHER <i>Terpsiphone atrocaudata</i>	C 1
JAPANESE WAXWING <i>Bombycilla japonica</i>	C 1
WHITE-THROATED ROCK THRUSH <i>Monticola gularis</i>	C 1
BLUE ROCK THRUSH <i>Monticola solitarius</i>	A 2 (FY)
SIBERIAN THRUSH <i>Zoothera sibirica</i>	B 2
SCALY THRUSH <i>Zoothera dauma</i>	B 2
GREY-BACKED THRUSH <i>Turdus hortulorum</i>	B 2
JAPANESE THRUSH <i>Turdus cardis</i>	C 2
EURASIAN BLACKBIRD <i>Turdus merula</i>	B 1
EYEBROWED THRUSH <i>Turdus obscurus</i>	B 3
PALE THRUSH <i>Turdus pallidus</i>	B 3
BROWN-HEADED THRUSH <i>Turdus chrysolaus</i>	C 1
DARK-THROATED THRUSH <i>Turdus ruficollis</i>	B 1
DUSKY THRUSH <i>Turdus naumanni</i>	B 3
CHINESE THRUSH <i>Turdus mupinensis</i>	C 1
GREY-STREAKED FLYCATCHER <i>Muscicapa griseisticta</i>	B 2
DARK-SIDED FLYCATCHER <i>Muscicapa sibirica</i>	B 2
ASIAN BROWN FLYCATCHER <i>Muscicapa dauurica</i>	B 3
YELLOW-RUMPED FLYCATCHER <i>Ficedula zanthopygia</i>	B 2
NARCISSUS FLYCATCHER <i>Ficedula narcissina</i>	C 2
MUGIMAKI FLYCATCHER <i>Ficedula mugimaki</i>	B 2
'RED-THROATED' FLYCATCHER <i>Ficedula (parva) albicilla</i>	B 2
'RED-BREASTED' FLYCATCHER <i>Ficedula p. parva</i>	C 1
BLUE-AND-WHITE FLYCATCHER <i>Cyanoptila cyanomelana</i>	B 1
VERDITER FLYCATCHER <i>Eumyias thalassina</i>	C 1
JAPANESE ROBIN <i>Erithacus akahige</i>	C 1
RUFIOUS-TAILED ROBIN <i>Luscinia sibilans</i>	B 2
SIBERIAN RUBYTHROAT <i>Luscinia calliope</i>	B 2
BLUETHROAT <i>Luscinia svecica</i>	C 1
SIBERIAN BLUE ROBIN <i>Luscinia cyane</i>	B 3
ORANGE-FLANKED BUSH ROBIN <i>Tarsiger cyanurus</i>	B 3

Species	Status
DAURIAN REDSTART <i>Phoenicurus aureoreus</i>	B 2
COMMON STONECHAT <i>Saxicola torquata maura</i>	B 2
GREY BUSHCHAT <i>Saxicola ferrea</i>	C 1
ISABELLINE WHEATEAR <i>Oenanthe isabellina</i>	C 1
RED-BILLED STARLING <i>Sturnus sericeus</i>	C 1
PURPLE-BACKED STARLING <i>Sturnus sturninus</i>	B 2
CHESTNUT-CHEEKED STARLING <i>Sturnus philippensis</i>	C 2
WHITE-CHEEKED STARLING <i>Sturnus cineraceus</i>	B 2
EURASIAN NUTHATCH <i>Sitta europaea</i>	C 1
CHINESE NUTHATCH <i>Sitta villosa</i>	C 1
EURASIAN TREECREEPER <i>Certhia familiaris</i>	C 1
WINTER WREN <i>Troglodytes troglodytes</i>	B 2
CHINESE PENDULINE TIT <i>Remiz consobrinus</i>	C 1
COAL TIT <i>Parus ater</i>	B 4
YELLOW-BELLIED TIT <i>Parus venustus</i>	C 1
GREAT TIT <i>Parus major</i>	A 3
VARIED TIT <i>Parus varius</i>	C 1
LONG-TAILED TIT <i>Aegithalos caudatus</i>	B 2
SAND MARTIN <i>Riparia riparia</i>	B 2
BARN SWALLOW <i>Hirundo rustica</i>	B 4
RED-RUMPED SWALLOW <i>Hirundo daurica</i>	B 4
NORTHERN HOUSE MARTIN <i>Delichon urbica</i>	C 1
ASIAN HOUSE MARTIN <i>Delichon dasypus</i>	B 4
GOLDCREST <i>Regulus regulus</i>	B 2
LIGHT-VENTED BULBUL <i>Pycnonotus sinensis</i>	B 2 (FY)
BROWN-EARED BULBUL <i>Ixos amaurotis</i>	A 2 (FY)
ZITTING CISTICOLA <i>Cisticola juncidis</i>	B 1
CHESTNUT-FLANKED WHITE-EYE <i>Zosterops erythropleurus</i>	B 3
JAPANESE WHITE-EYE <i>Zosterops japonicus</i>	C 1
ASIAN STUBTAIL <i>Urosphena squameiceps</i>	B 2
JAPANESE BUSH WARBLER <i>Cettia diphone borealis</i>	B 2 (Ne)
SPOTTED BUSH WARBLER <i>Bradypterus thoracicus</i>	C 1
LANCEOLATED WARBLER <i>Locustella lanceolata</i>	B 2
RUSTY-RUMPED WARBLER <i>Locustella certhiola</i>	B 2
MIDDENDORFF'S WARBLER <i>Locustella ochotensis</i>	C 1
PLESKE'S WARBLER <i>Locustella pleskei</i>	C 1
GRAY'S WARBLER <i>Locustella fasciolata</i>	B 2
BLACK-BROWED REED WARBLER <i>Acrocephalus bistrigiceps</i>	B 3
PADDYFIELD WARBLER <i>Acrocephalus agricola</i> , excluding <i>A. (a.) tangorum</i>	C 1
'MANCHURIAN' REED WARBLER <i>Acrocephalus (agricola) tangorum</i>	C 1
ORIENTAL REED WARBLER <i>Acrocephalus orientalis</i>	B 2
THICK-BILLED WARBLER <i>Acrocephalus aedon</i>	B 2
DUSKY WARBLER <i>Phylloscopus fuscatus</i>	B 3
TICKELL'S LEAF WARBLER <i>Phylloscopus affinis</i>	C 1
RADDE'S WARBLER <i>Phylloscopus schwarzi</i>	B 2
PALLAS'S LEAF WARBLER <i>Phylloscopus proregulus</i>	B 2
CHINESE LEAF WARBLER <i>Phylloscopus yunnanensis</i>	C 1

Species	Status
YELLOW-BROWED WARBLER <i>Phylloscopus inornatus</i>	B 3
HUME'S WARBLER <i>Phylloscopus humei</i>	B 1
ARCTIC WARBLER <i>Phylloscopus borealis</i>	B 3
GREENISH WARBLER <i>Phylloscopus trochiloides plumbeitarsus</i>	B 2
PALE-LEGGED LEAF WARBLER <i>Phylloscopus tenellipes</i>	B 3
EASTERN CROWNED WARBLER <i>Phylloscopus coronatus</i>	B 3
GREATER SHORT-TOED LARK <i>Calandrella brachydactyla</i>	C 1
CRESTED LARK <i>Galerida cristata</i>	C 1
EURASIAN SKYLARK <i>Alauda arvensis</i> , excluding <i>A. a. japonica</i>	B 1
'FAR-EASTERN SKYLARK' <i>Alauda arvensis japonica</i>	C 1
RUSSET SPARROW <i>Passer rutilans</i>	C 1
EURASIAN TREE SPARROW <i>Passer montanus</i>	C 1
FOREST WAGTAIL <i>Dendronanthus indicus</i>	B 2
WHITE WAGTAIL <i>Motacilla alba</i>	B 3
JAPANESE WAGTAIL <i>Motacilla grandis</i>	C 1
CITRINE WAGTAIL <i>Motacilla citreola</i>	C 1
YELLOW WAGTAIL <i>Motacilla flava</i>	B 2
GREY WAGTAIL <i>Motacilla cinerea</i>	B 2
RICHARD'S PIPIT <i>Anthus richardi</i>	B 2
BLYTH'S PIPIT <i>Anthus godlewskii</i>	B 1
TREE PIPIT <i>Anthus trivialis</i>	C 1
OLIVE-BACKED PIPIT <i>Anthus hodgsoni</i>	B 3
PECHORA PIPIT <i>Anthus gustavi</i>	B 2
RED-THROATED PIPIT <i>Anthus cervinus</i>	B 2
BUFF-BELLIED PIPIT <i>Anthus rubescens</i>	B 2
ALPINE ACCENTOR <i>Prunella collaris</i>	C 1
SIBERIAN ACCENTOR <i>Prunella montanella</i>	B 2
SCALY-BREASTED MUNIA <i>Lonchura punctulata</i>	C 1
BRAMBLING <i>Fringilla montifringilla</i>	B 4
GREY-CAPPED GREENFINCH <i>Carduelis sinica</i>	B/A 2 (FY)
EURASIAN SISKIN <i>Carduelis spinus</i>	B 3
LONG-TAILED ROSEFINCH <i>Uragus sibiricus</i>	B 1
COMMON ROSEFINCH <i>Carpodacus erythrinus</i>	B 2
PALLAS'S ROSEFINCH <i>Carpodacus roseus</i>	B 2
RED CROSSBILL <i>Loxia curvirostra</i>	B 2
WHITE-WINGED CROSSBILL <i>Loxia leucoptera</i>	C 1
EURASIAN BULLFINCH <i>Pyrrhula pyrrhula</i>	B 1
HAWFINCH <i>Coccothraustes coccothraustes</i>	B 2
YELLOW-BILLED GROSBEAK <i>Eophona migratoria</i>	B 2
JAPANESE GROSBEAK <i>Eophona personata</i>	C 2
PINE BUNTING <i>Emberiza leucocephalos</i>	C 1
MEADOW BUNTING <i>Emberiza cioides</i>	B 2 (Ne)
TRISTRAM'S BUNTING <i>Emberiza tristrami</i>	B 2
CHESTNUT-EARED BUNTING <i>Emberiza fucata</i>	B 1
LITTLE BUNTING <i>Emberiza pusilla</i>	B 2
YELLOW-BROWED BUNTING <i>Emberiza chrysophrys</i>	B 3
RUSTIC BUNTING <i>Emberiza rustica</i>	B 4
YELLOW-THROATED BUNTING <i>Emberiza elegans</i>	B 3

Species	Status
YELLOW-BREASTED BUNTING <i>Emberiza aureola</i>	B 2
CHESTNUT BUNTING <i>Emberiza rutila</i>	B 3
YELLOW BUNTING <i>Emberiza sulphurata</i>	C 1
BLACK-FACED BUNTING <i>Emberiza spodocephala</i>	B 3
GREY BUNTING <i>Emberiza variabilis</i>	C 1
PALLAS'S BUNTING <i>Emberiza pallasi</i>	B 1
REED BUNTING <i>Emberiza schoeniclus</i>	C 1
OCHRE-RUMPED BUNTING <i>Emberiza yessoensis</i>	C 1
LAPLAND LONGSPUR <i>Calcarius lapponicus</i>	C 1

Key

A = Recorded on more than 100 dates by the author (i.e. largely resident or resident with numbers increased by migrants); B = Recorded on 10–100 dates by the author (i.e. evidently a regular migrant); C = Recorded on fewer than ten dates by all observers combined.

Abundance (all observers combined): 1 = peak day count of <10; 2 = peak day count of 11–100; 3 = peak count of 101–1,000; 4 = peak count of >1,000.

Breeding evidence: (Ne)= observed carrying nesting material; (N)= incubating bird, or nest found; (FY)= adults observed feeding fledged young, or presence of recently fledged juveniles; (BR?)= no direct evidence, but presence of multiple individuals at appropriate season, and known to breed on adjacent islands.

Note: with such limited survey effort, it would be premature to accord too detailed a status comment to the majority of species.