

## SPECIES INFORMATION SHEET

*Charadrius hiaticula hiaticula*

English name: <b>Ringed plover</b>	Scientific name: <b><i>Charadrius hiaticula hiaticula</i></b>	
Taxonomical group: Class: Aves Order: Charadriiformes Family: Charadriidae	Species authority: Linnaeus, 1758	
Subspecies, Variations, Synonyms: –	Generation length: 6 years	
Past and current threats (Habitats Directive article 17 codes): Overgrowth of open areas (A04.03, K02), Tourism (G01), Alien species (I01), Competition and predation (I02), Changes in agricultural management (A02)	Future threats (Habitats Directive article 17 codes): Overgrowth of open areas (A04.03, K02), Tourism (G01), Alien species (I01), Competition and predation (I02), Changes in agricultural management (A02)	
IUCN Criteria: <b>A2bc</b>	<b>HELCOM Red List Category:</b>	<b>NT Near Threatened</b>
Global / European IUCN Red List Category LC / LC Assessment on species level, not for the sub-species <i>Ch. h. hiaticula</i>	Annex I EU Birds Directive -no Annex II EU Birds Directive -no	
Red List status in HELCOM countries: Denmark: LC (species level), Estonia: NT (species level), Finland: NT (species level), Germany: 1 (Critically endangered, species level), Latvia: –, Lithuania: R Rare (species level), Poland: VU, Russia: –, Sweden: LC		

**Range description and general trends**

The ringed plover is a widespread breeder in northern Europe. The European breeding population counts >120 000 bp. It was stable during the period 1970–1990, but in some countries the population was declining during the period 1990–2000 (BirdLife International 2004). In the Baltic Sea area, the ringed plover occurs with two subspecies: *Ch. hiaticula hiaticula*, which breeds mainly along the coasts all around the Baltic (but also along larger, unregulated rivers), and *Ch. hiaticula tundrae*, which breeds in the Swedish mountain and Finnish inland (north-east Finland and Lapland) areas.



*Charadrius hiaticula hiaticula*. Photo by Jürgen Reich.

## Distribution and status in the Baltic Sea region

**Sweden** hosts by far the largest population of the ringed plover in the Baltic Sea area. The total is estimated at 15 000 bp. The larger proportion (c. 12 100 bp) breeds in the mountains and belongs to the subspecies *Ch. hiaticula tundrae*, which is not included in this assessment. The subspecies *Ch. hiaticula hiaticula* breeds along the entire coast from the Finnish border to northern Halland; it is estimated at 3 200 pairs. According to Ottvall *et al.* (2009) the population has been stable during the last 10- and 30-year periods. However, this assessment does not distinguish between the two subspecies.

In **Finland**, the recent data indicate a decline of 47% during 10 years, but these data are regarded as uncertain and biased. The current decline appears to concern only the inland populations of north-east Finland and Lapland, which belong to the subspecies *Ch. h. tundrae*. The coastal population of *Ch. h. hiaticula* is estimated at c. 1 100 bp in 2010 and considered as stable (Hario & Rintala 2011). In **Estonia**, a strongly negative trend has been observed during 1991–2008, the population declined by more than 50% (Elts *et al.* 2009).

**Lithuania, Latvia** and Baltic **Russia** only host small numbers of ringed plovers. The breeding sites are usually coastal; however, inland breeding occasionally may occur (Vysotsky & Kondratiev 1999). The recent trend seems to be about stable.

In **Poland**, the ringed plover is a scarce breeder (350–400 bp), mostly along the coast and large to medium-sized rivers, where currently c. 80% of the population are found. During the last 20 years, a marked decline in both coastal and inland breeding areas has been observed (Sikora *et al.* 2007). At the coast, breeding pair numbers declined from 160–200 bp during the 1970s to 60–70 bp in the 1990s. The strongest population is found in the middle section of Vistula River, but the species also breeds along the Bug, Pilica and Narew rivers (Tomiałojć & Stawarczyk 2003).

In **Germany, Mecklenburg-Western Pomerania**, the ringed plover is a scattered, but widespread breeder on beaches, sand banks, coastal spits, dump sites for dredging material and near-coastal and inland crop land (maize, summer grain, beets and potatoes; Holz & Herrmann 1982, Holz 1987), which makes it difficult to get reliable population figures. However, it seems that outside coastal bird sanctuaries with strict control of predatory mammals the ringed plover has declined largely, especially during the 1990s. The country-wide bird inventories indicate a decline of 50% between 1978–82 and 1994–1998 (Nehls 2006). The trend after 2000 is only known for the bird sanctuaries, where the population has been about stable. In **Schleswig-Holstein**, the ringed plover breeds with about 640 bp; 220 of them are breeding at the Baltic coast. The Baltic breeding population has been about stable since the mid-1980s.

Based on Wadden Sea counts (*e.g.*, Thorup 2007) and the project Fuglenes Danmark (Grell 1998), an estimate of the **Danish** total population was prepared for the WSG project Breeding waders in Europe 2000 by Thorup (2006). For 1993–1997, a total of 1 900–2 500 bp have been estimated for Denmark, 850–1 600 bp of them breeding in the Baltic region.

There are not many population data available for trend estimates at the Danish Baltic coast. At Læsø, there was a 28% increase from 90 pairs in 1973 (Møller 1975) to 115 pairs in 1996 (P.A.F. Rasmussen 1996, unpubl.). On Saltholm, the breeding number dropped from 35 pairs in 1976 (Jensen 1987) to 10 pairs in 2006 (M. Jørgensen 2007 unpubl.), and on the 32 coastal meadows most important for breeding meadowbirds in the former Storstrøms Amt, the number of breeding ringed plovers dropped by 50% – from 82 pairs to 41 pairs – between the late 1980s and 2003 (Jørgensen 1989, 2006).

The general trend in Denmark is obviously strongly declining. In the Danish Wadden Sea, census programmes covering the whole area showed a decline of 52% from 1996–1997 to 2006–2007, from 279 to 135 pairs (Thorup 2007). If a 50% decline is assumed for the last 15–20 years for all areas – and

## SPECIES INFORMATION SHEET

*Charadrius hiaticula hiaticula*

the relatively poor data could support this – the Danish total may be as low as approximately 1000 pairs in 2010, with perhaps 500–650 pairs in the Baltic region.

Table 1: Population numbers of the ringed plover in the Baltic Sea area. For population trends 0=stable, -=decreasing, --=strongly decreasing, f=fluctuating, ?=unknown.

Country	Population size		Short-term population trend (10 years)	Long-term population trend (50 years)
	Breeding pairs	Year		
Sweden	3 200	2010	0	0
Finland	1 100	2009	0	-
Russia KAL	7–12	2003–2009	f	-
Russia PET	10–20	2009	?	?
Estonia	1 000–2 000	2003–2008	--	-
Latvia	20–30	2009	-	0/-
Lithuania	30–50	1999–2001	0	0
Poland	350–400	2003	-	-
Germany SH	220	2005–2009	0	-
Germany MV	220–240	1994–1998	-	-
Denmark	500–650	2010	-	-
<b>Baltic Sea</b>	<b>6 650–7 900</b>			

## Distribution map



## SPECIES INFORMATION SHEET

## *Charadrius hiaticula hiaticula*

### Habitat and ecology

The ringed plover inhabits open, bare or sparsely vegetated habitats of early stages of succession (coastal islets, sandy spits and ridges, beaches, river banks) or with a transitional character, especially man-made gravel-pits, reclaimed land, roadsides and pastures. It also breeds on agricultural land, as long as the vegetation is low (summer grains, potatoes, maize, beets, Holz 1987).

In Denmark, the species uses three different breeding habitats: 1) sandy beaches, 2) spring sown fields in cultivated land, and 3) short grazed coastal meadows. In 1993–1997 the numbers of breeding pairs in these habitats were estimated at: Sandy beaches: 450–950 pairs; cultivated fields: 140–220 pairs; coastal meadows (including mixed meadow-coastal lagoon-sandy beach habitats): 1 100–1 500 pairs.

### Description of major threats

Overgrowth of open habitats, human disturbance by increased numbers of visitors on the coast, increased predation, and construction projects destroying suitable habitats are probably among the main reasons for the declines. With regard to the fraction of the population that breeds on cultivated land, also changes in agricultural practices are obviously important, especially a large-scale shift from spring-sown to autumn-sown crops. Better drainage and fewer left-over small wet patches in the fields probably also have a negative impact on breeding site availability.

In the coastal environment, the breeding success is low in many areas, due to disturbances and high predation rates. Predation plays a major role in Germany, where the Fox population has increased considerably due to rabies eradication during the 1990s.

### Assessment justification

Since the ringed plover is a scattered breeding bird, it is difficult to obtain precise population numbers. However, a considerable decline during the past decades is obvious for many parts of the Baltic region. Though the decline seems to have slowed down or stopped in several countries (*e.g.*, Germany, Poland) it is continuing in other countries with strong populations (Estonia, Denmark). However, the trends are not uniform. In the Stockholm Archipelago the species has increased by 25% from 1975 to 2000. Also in Finland, the population in the archipelago (totalling now 1100 pairs) has been increasing by 1.9% per year since the late-1980s.

The general figures indicate that the ringed plover qualifies for the category *Near Threatened* (NT) according to criterion A2bc.

### Recommendations for actions to conserve the species

Predator control is by far the most readily used measure to enhance the reproduction rate in the Baltic breeding habitats; the main predators are foxes and minks. The ringed plover is well adapted to breed on barren rocks – a habitat not in short supply. However, breeding success on low laying sandy islets and beaches is jeopardized by the increasing construction and tourism activities in these habitats. Public awareness campaigns are needed in areas that have been taken over by man. Re-introducing grazing is an important tool against the overgrowth of coastal meadows. A set-a-side practice of small wet patches in the field should be launched in cultivated habitats.

### Common names

Denmark: Stor præstekrave, Estonia: Liivatüll, Finland: tylli, Germany: Sandregenpfeifer, Latvia: Smilšu tārtiņš, Lithuania: Jurinis kirlikas, Jūrinis kirlikas, Poland: sieweczka obrozna, Russia: Галстучник, Sweden: Större strandpipare

## SPECIES INFORMATION SHEET

*Charadrius hiaticula hiaticula*

## References

- BirdLife International (2004): Birds in Europe. Population estimates, trends and conservation status. BirdLife Conservation Series 12, Cambridge UK.
- Elts, J., A. Kuresoo, E. Leibak, A. Leito V. Lilleleht, L. Luigujõe, E. Mägi, R. Nellis, R. Nellis & M. Ots (2009): Status and Numbers of Estonian Birds, 2003–2008. *Hirundo* 22, 3–31.
- Estonian Red List of Threatened Species (2008). Available at <http://elurikkus.ut.ee/prmt.php?lang=eng>.
- Grell, M.B. (1998): Fuglenes Danmark. Dansk Orn. Foren. Gads Forlag.
- Hario, M. & J. Rintala (2011): Population trends of the archipelago birds along Finnish coasts during 1986–2010. *Linnut yearbook 2010*: 40–51.
- Holz, R. (1987): Populationsentwicklung des Sandregenpfeifers (*Charadrius hiaticula*) im südwestlichen Ostseeraum: Ursachen und Konsequenzen veränderter Habitatnutzung. *Natur u. Naturschutz in MV* 25: 1–80.
- Holz, R. & C. Herrmann (1982): Ackerbruten der Zwergseeschwalbe, *Sterna albifrons* Pallas, und die Beurteilung ihrer Habitatansprüche. *Mitt. zool. Mus. Berlin* 58, Suppl. Ann. Orn. 6: 77–85.
- Głowaciński, Z. et al. 2001. Państwowe Wydawnictwo Rolnicze i Leśne, (Polish Red Data Book of Animals, Vertebrates). Warszawa.
- Jensen, A. (1987): Fuglene på Saltholm. Skov- og Naturstyrelsen.
- Jørgensen, H.E. (1989): Ynglende vandfugle i Storstrøms amt. Status over forekomster 1985–1989. Frederikshus, Øster Ulslev.
- Jørgensen, H.E. (2006): Ynglefugle på strandenge i Storstrøms Amt 2003. Storstrøms Amt, Nykøbing Falster.
- Lietuvos Raudonoji Knyga, the Red List of Lithuania. Available at <http://www.raudonojiknyga.lt/>.
- Mikkola-Roos, M., Tiainen, J., Below, A., Hario, M., Lehikoinen, A., Lehikoinen, E., Lehtiniemi, T., Rajasärkkä, A., Valkama, J. & Väisänen, R. A. (2010). *Linnut, Birds. Aves*. In Rassi, P., Hyvärinen, E., Juslén, A. & Mannerkoski, I. (eds.). Suomen lajien uhanalaisuus – Punainen kirja 2010. Ministry of the Environment & Finnish Environment Institute, Helsinki. P. 183–203.
- Møller, A.P. (1975): Ynglefugleoptælling af vadefugle *Charadrii* på Læsø, Nordjylland, i årene 1971–74. - *Dansk Orn. Foren. Tidsskr.* 69: 31–40.
- Nehls, H.W. (2006): Sandregenpfeifer – *Charadrius hiaticula*. In: Eichstädt, W., W. Scheller, D. Sellin, W. Starke & K.D. Stegemann (eds.): *Atlas der Brutvögel in Mecklenburg-Vorpommern*. Steffen Verlag, Friedland: 176–177.
- Ottvall, R., L. Edenius, J. Elmberg, H. Engström, M. Green, N. Holmqvist, Å. Lindström, T. Pärt & M. Tjernberg (2009): Population trends for Swedish breeding birds. *Ornis Svecica* 19: 117–192.
- The Red List of Lithuania (2009). Available at <http://www.raudonojiknyga.lt/>.
- Sikora, A., Z. Rohde, M. Gromadski, G. Neubauer & P. Chylarecki (2007): *The Atlas of Breeding Birds in Poland 1985–2004*. Bogucki Wydawnictwo Naukowe, Poznan.
- Südbeck, P., Bauer, H.-G., Boschert, M., Boye, P. & W. Knief (2007): *Rote Liste der Brutvögel Deutschlands*, 4. Fassung. *Ber. Vogelschutz* 44: 23–81.
- Thorup, O. (2006): Breeding waders in Europe 2000. *International wader Studies* 14, International wader Study Group, UK.
- Thorup, O. (2007): Ynglefugle i Vadehavet 2007. Unpublished report, Danmarks Miljøundersøgelser.
- Tomiałojć, L. & T. Stawarczyk (2003): *Awifauna Polski. Rozmieszczenie, liczebność i zmiany*. The Avifauna of Poland. Distribution, Numbers and Trends. Vol. I & II, Wrocław.
- Vysotsky V.G. & A.V. Kondratiev (1999): On the ringed plover *Charadrius hiaticula* breeding in southern shore of the Ladoga Lake. *Russian J. Ornithol. Express issue*. Vol. VIII. № 86: 16–17 (in Russian).
- Wind, P. & Pihl, S. (eds.). (2004–2010): *The Danish Red List*. - The National Environmental Research Institute, Aarhus University [2004]-. <http://redlist.dmu.dk> (updated April 2010). Species information available at <http://bios.au.dk/videnudveksling/til-myndigheder-og-saerligt-interesserede/redlistframe/soegart/>