Anser albifrons

The White-fronted Goose breeds in the Eurasian tundra from the Kanin Peninsula in the W to the Kolyma tundra in the E. Its distribution is limited roughly between the July 4°C and 10°C isotherms.

Although the species' habitat preferences in the Bol'shezemel'skaya tundra are broadly comparable with those of the Tundra Bean Goose Anser fabalis rossicus, long-term research has shown they are confined to only 6 of the 15 tundra habitat types against the latter's 14 (Mineyev 1987). In particular, the White-fronted Goose is not found along the slopes bordering large lakes, whereas almost one sixth of all observations of Tundra Bean Geese occur in this habitat. Other principal breeding habitats of White-fronted Goose are sea coasts (23.3% of observations), tundras along rivers (22.2%), bogs (16.5%) and small temporary lakes (15.9%). Bird summer density per km² varies from 1.7 to 5.7 (1986–93) for the whole of the Malozemel'skaya tundra, and from 2.1 to 7.3 (1981–87) for the whole of the Yugorskiy Peninsula. From 1973 to 1993, the mean density averaged lowest (0.1–0.2 birds/km²) in the Kanin Peninsula, the coastal area along the Cheshskaya Gulf, and the subarctic belt between the towns of Nar’yan-Mar and Vorkuta. The island of Kolguyev yielded about 13 birds/km² and the southern part of Vaygach Island, 8 birds/km². The highest density of breeding birds was noted along Kolokolkova Bay (590 birds/km²).

The White-fronted Goose nests in several types of tundra; Carex-grassy areas in hilly tundras, sea coast meadows, along river coasts, in hummock grassy and hummock moss—shrubbery tundras, stone fields with sparse shrubby and grassy vegetation, and on Carex—Eriophorum bogs. Breeding densities vary from very low in the southernmost shrub tundra to very high in coastal areas, principally at lakes 0.1–0.5 km² in area.

In the European tundras, Mineyev (1987) found large annual fluctuations. Nesting densities may reach 10–20 bp/km² in good ecological conditions. The species nests especially densely near breeding Rough-legged Buzzard Buteo lagopus, Merlin Falco columbarius and Peregrine F. peregrinus. The diagram indicates mass breeding areas.

Among the six subpopulations wintering in the W Palearctic, that in the Baltic/North Sea area comprises birds originating mainly from European breeding grounds (Perdeck & Speek 1964, Lebedeva 1979). Their number has grown from 55 000 to 80 000 in the 1960s to nearly 480 000 by January 1986. Subsequent winter counts estimate a slightly lower total (1988/89, 400 000–410 000; Kuyken & Meire 1990). These data suggest a marked increase of the breeding population in European Russia since 1965. However, ringing recoveries show that exchanges occur of wintering birds between the Baltic/North Sea population and the eastern Europe population (Lebedeva 1979). Because the latter group consists mainly of birds breeding in W and C Siberian tundras (Ptushenko 1952, Lebedeva 1979), the suggested increase of the European breeding population cannot yet be confirmed.

Comparative long-term studies of the Asian populations of the Taymyr Peninsula and the Anadyr River show that the latter's population is relict (Krechmar 1986). This accentuates the importance of protection of the westernmost breeding grounds, especially in the light of recent large-scale development of mineral extraction (Mineyev 1982a).

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