



1976). Others, like Buturlin (1935), Berry (1938) and Coombes (1951), agreed with Naumann's (1842) view and remained convinced that Taiga and Tundra Bean Geese are distinct taxa.

In the late 1930s and early 1940s, systematics underwent a profound change with the introduction of the Biological Species Concept. The Biological Species Concept defines species as populations or groups of interbreeding populations which are reproductively isolated from other such populations. Within a few years, the Biological Species Concept became the dominant view of species in ornithology. The Biological Species Concept was greeted with enthusiasm by taxonomists because it seemed to provide a workable definition of species and because it seemed to justify the widespread practice of lumping distinctive forms into a 'manageable' number of polytypic species. In cases where taxa replace each other geographically, it was assumed that these taxa would be able to exchange genes if they would come into contact. This assumption seemed reasonable because of the existence of hybrid zones in places where such forms come into contact.

Within a few years, a new theory about the status and relationships of Taiga and Tundra Bean Geese was proposed by Delacour (1951). He based his view on correspondence with H Johansen. They accepted the view that Taiga and Tundra Bean Geese represent recognizable taxa but noted that the existence of individuals which do not seem to fit either type indicated the existence of a zone of intergradation. Delacour (1951) accepted Johansen's views about the existence of these 'intergradation zones' without reservations and, rather surprisingly, was even able to identify these areas on a map. In his classification of the bean goose complex, Delacour lumped all forms into a single species but accepted Taiga Bean Goose (*A f fabalis*, *A f johanseni* and *A f middendorffii*) and Tundra Bean Goose (with the subspecies *A f brachyrhynchus*, *A f rossicus* and *A f serrirostris*) as subspecies groups. With the exception of *A f brachyrhynchus*, which was subsequently separated as a distinct species (eg, Cramp & Simmons 1977), Delacour's classification was adopted by almost

295 Taiga Bean Geese / Taigarietganzen *Anser fabalis*, Almere, Flevoland, the Netherlands, 15 February 1986 (Arnoud B van den Berg) 296 Tundra Bean Geese / Toendrijetganzen *Anser serrirostris*, Hellevoetsluis, Zuid-Holland, the Netherlands, February 1986 (René Pop) 297 Tundra Bean Goose / Toendrijetgans *Anser serrirostris* (left) and Pink-footed Goose / Kleine Rietgans *A brachyrhynchus*, Elahuizen, Friesland, the Netherlands, 8 February 1996 (Arnoud B van den Berg)