

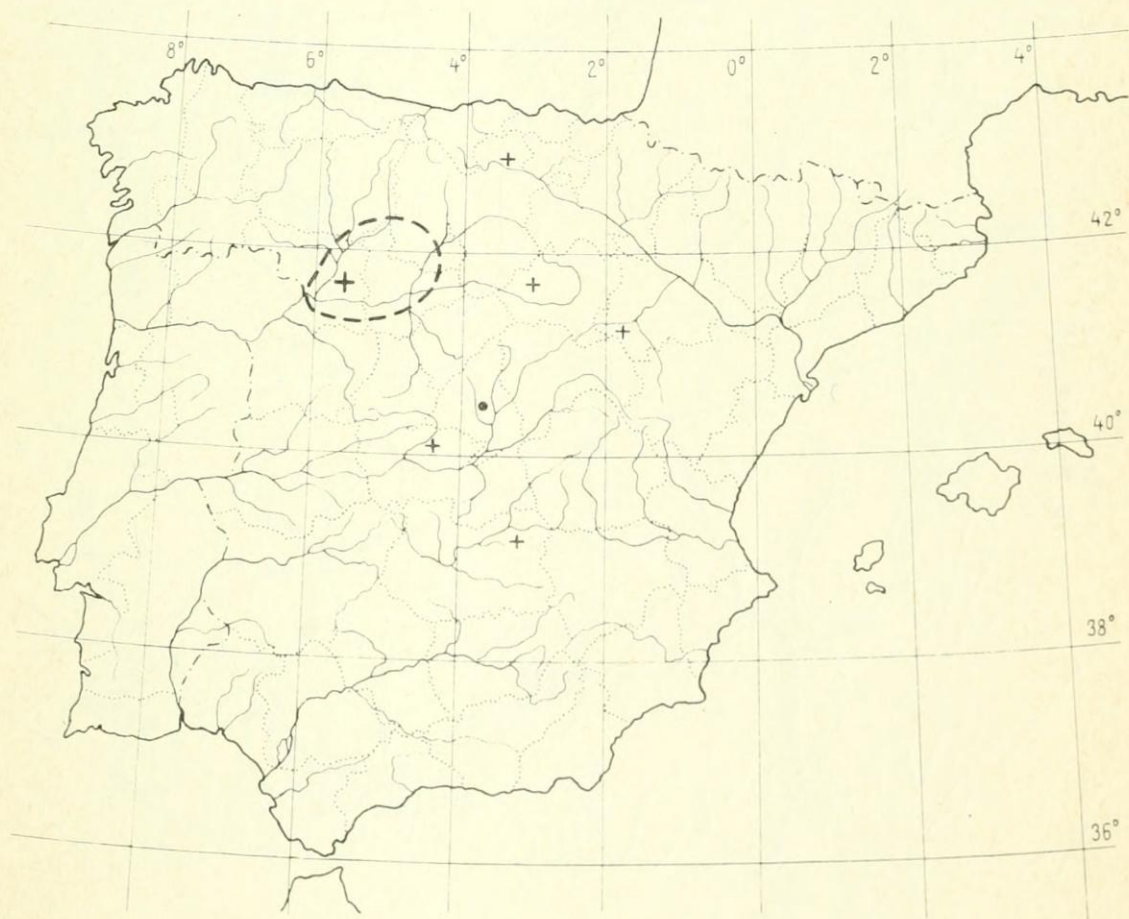
ANSER FABALIS IN SPAIN: HABITAT, DISTRIBUTION AND POPULATION DYNAMICS

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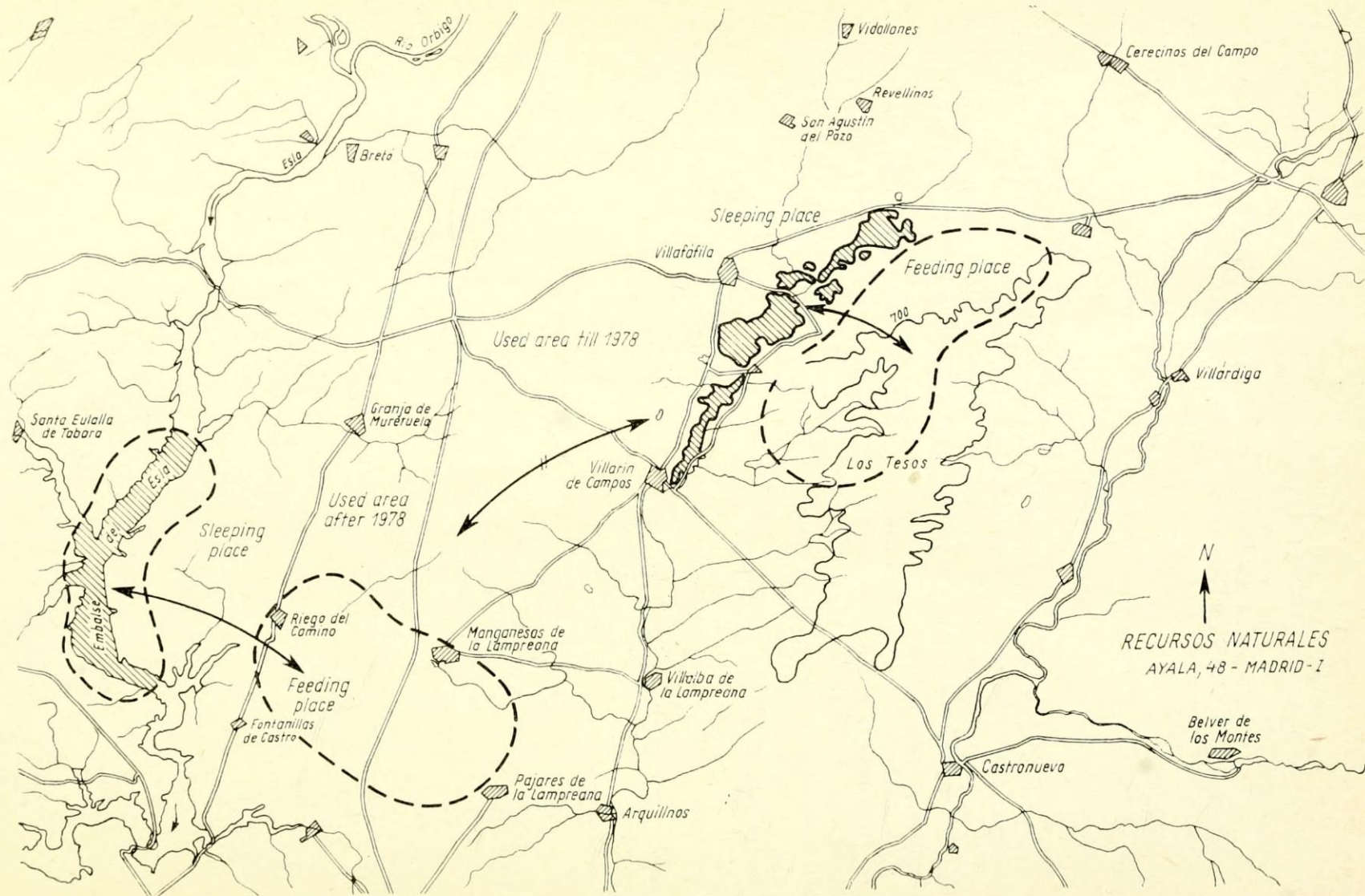
According to Bernis, *Anser fabalis* wintering in Spain are of the subspecies *A. f. rossicus*, or between *A. f. rossicus* and *A. f. fabalis*.

The only ringing recoveries in Spain are of two adults ringed in February and March 1963 or 1964 at Alem in the southern Netherlands, both shot in Tierra de Campos, northern Spain.

The maximum number recorded is 6000 in 1969, the minimum 400 in 1978 and 1980. The average wintering population numbers 4000. They stay from the beginning of November until the end of February, mostly in Zamora province, but also in the provinces of Burgos, Zaragoza, Valladolid, Soria and Toledo (Fig. 1), between 43° and 40° N. The preferred habitat is cultivated land, with low density of human population.



1. *Anser fabalis* in Spain



2. Wintering places of *Anser fabalis* in Spain

In the last four years, following the drought, the population of *A. fabalis* wintering in Spain has changed its roosting area from the lagoons at Villafáfila (Zamora province) to the nearly artificial reservoir on the Esla River. The two sites cover 1200 square kilometres (Fig. 2).

The problems confronting the geese are as follows:

- *Hunting*: there is no specialized *A. fabalis* hunting;
- *Agriculture*: there is probably some influence of pesticides (now being studied), with traces of pesticides found in muscles and viscera;
- *Disturbance*: some influence of human pressure is found with building of new roads;
- *Drought*: the recent drought has caused the birds to change roosting places in its principal area.

The associated fauna in the area includes: up to 2000 *Grus grus* in November and December; up to 1000 *Anser anser* between November and March; a total of up to 5000 ducks (*Anas penelope*, *A. acuta*, *A. crecca*, *A. clypeata* and *A. platyrhynchos*); other non waterfowl species - *Otis tarda*, *O. tetrax*, *Pterocles orientalis*, *P. alchata*.

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