

# WSG INTERNATIONAL PROJECT ON BLACK-WINGED STILTS

by Phillipe Dubois

## BACKGROUND

Amongst European breeding waders the Black-winged Stilt *Himantopus himantopus* is probably one of the least studied. Black-winged stilts breed in all continents of the world, and there are at least 5 subspecies, although some are sometimes considered to be true species (Cramp and Simmons 1983). In Europe Black-winged Stilts breed from Turkey, Romania and Bulgaria to the Iberian peninsula (Figure 1), but the main haunts are Spain (more than 20 000 pairs), Portugal (500 - 1000 pairs), southern and western France (800 - 1000 pairs) and Italy (at least 1000 pairs). The Greek and western populations are probably decreasing (pers. obs., R.-M. Lafontaine pers. comm.).

The size of the breeding populations in each country are very variable: in one year the population can be large, yet the following year the same country can host only a few dozen breeding pairs. It appears that the Black-winged Stilt is very dependent on wet conditions for successful breeding. It seems possible that it is the breeding conditions in the Iberian peninsula that determines the breeding distribution in western Europe. When habitats in Spain are dry, more stilts breed in France (as for example in 1982 and 1983). In contrast, when there are wet conditions in the Iberian peninsula the French population (and perhaps the Italian one) is very low (as in 1984). A similar pattern seems to occur in Morocco, where many birds breed only in wet years. For example in 1966 several tens of thousands bred at Dayiet Iriki in southern Morocco (Robin 1968), and smaller numbers at Dayiet Merzouga in 1975 (Duhnis and Duhautois 1977).

Little has been published on the biology of the Black-winged Stilt. Reports on breeding biology are scattered through the literature and many are very anecdotal. The most important work comes from Morocco (Robin 1966) and Benelux after a big influx of breeding birds in 1965 (Lippens *et al.* 1966). Other contributions include Khrokov's (1982) study in Russia, and reports of some aspects of breeding biology in Italy (Bologna and Petretti 1978, Tornielli 1979, Rome and Trivison 1982). A study that I made in France in 1983 (Dubois in prep.) will add information but much remains to be discovered.

The behaviour of stilts has been studied in more detail. Recent work by Goriup (1982) documents the feeding, intra-specific and inter-specific behaviour and sexual interactions of Black-winged Stilts. A similar study has been made by Hamilton (1975) on the closely-related Black-necked Stilt *Himantopus (himantopus) mexicanus*. Other behavioural work includes a study in Greece in July 1979 of the foraging behaviour of adults and juveniles (Espin, Mather and Adams 1983). Foraging behaviour is one of the better known features of Black-winged Stilt biology. However diet is poorly recorded. This will in part be remedied by a current study on food and feeding ecology in the Camargue, France (Heath in prep.).

Very little is known of the migration and wintering phenology, or of the factors influencing the yearly variations in breeding populations described above.

Studies on Black-winged Stilts are known to be in progress in at least 4 European countries (see Figure 1 for locations). These studies

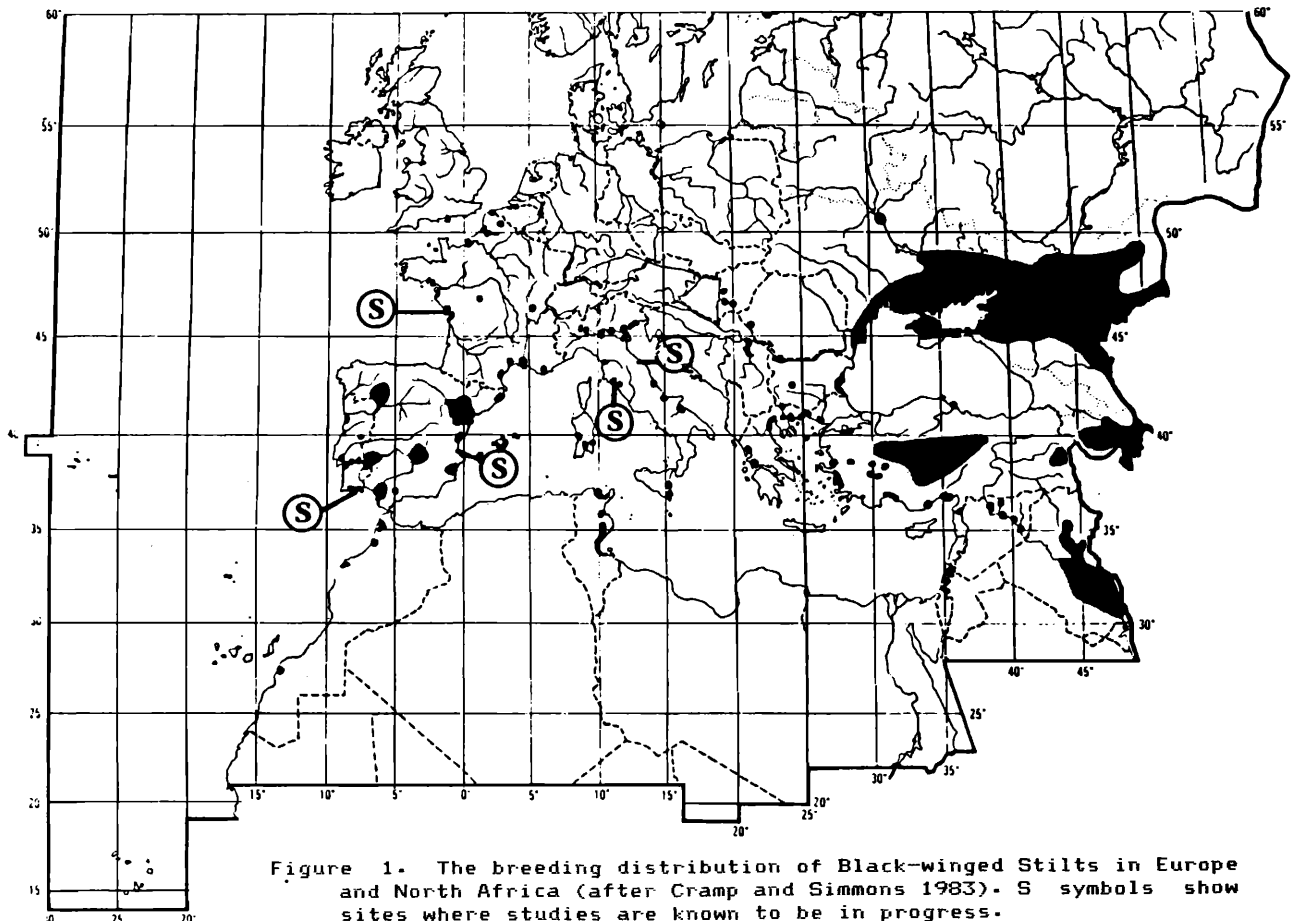


Figure 1. The breeding distribution of Black-winged Stilts in Europe and North Africa (after Cramp and Simmons 1983). S symbols show sites where studies are known to be in progress.

include 2 colour-marking projects in Italy. F. Petretti has colour-ringed juveniles at Laguna di Orbetello on the Mediterranean coast since 1981; R. Tinarelli and colleagues began a colour-ringing programme in Emilia-Romagna Province in north-eastern Italy in 1984. In 1983 I began a study on a population breeding in Vendee and Charente-Maritime on the Atlantic coast of France. Studies of wetlands in Spain by L. Alberto, Leon University and Estacion Ornitologia Albufera include collection of data on stilts. In Portugal, R. Rufino and A. Araujo are making a general study of the waders (including Black-winged Stilts) in the Algarve. Some juveniles were colour-ringed, in 1979 only.

In these 4 countries the breeding habitats of stilts are sometimes threatened by man's activities. For example salt and brackish habitats are constantly diminishing with the abandoning of salt extraction works. However in Spain for instance stilts breed increasingly in artificial habitats such as ricefields. Although we know that human influences affect stilt populations, we know little of how these and climatic factors combine to affect the yearly variations in population size. In particular, there is no comparative data available from the 4 countries mentioned above.

Finally, almost nothing is known of the winter distribution and ecology of stilts on Africa.

#### THE PROJECT

The overall aims of the project are to try to fill some of the gaps in our understanding of the ecology and conservation of stilts, and to try to co-ordinate the collection of such data on stilts throughout southern Europe. In particular we aim to collect data on the breeding populations in each country; on the patterns on migration and wintering in Europe and Africa; and on the ecology of stilts in relation to climate and wetland management.

The basis of the project is a 3-year study (starting in 1985) that I am making in western France. My object in organising the WSG project announced here, to run concurrently with my research study, is to try to encourage contact between people interested in or working on stilts, and to attempt the co-ordination of methods of data collection. Without such international co-operation many of the crucial questions about the ecology and dynamics of the stilt populations are very difficult to answer.

The complete project is outlined below. This outline includes categories of information that probably can be collected only during detailed research studies, and information which we hope will be collected by a wider group of participants.

The programme divides into a number of categories:

1. A survey of the evolution and past changes in the European population.
2. Breeding population census, to see how numbers of breeding pairs vary between years in southern Europe.
3. Breeding Biology. Collection of quantitative data on breeding from setting up to fledging, and breeding (hatching, fledging) success.
4. Dispersal and migration in Europe, to measure juvenile dispersal after fledging, and breeding and non-breeding adult dispersal within populations; to examine family cohesion; and to assess the European migration and possible wintering in southern Spain and Portugal. These

questions require observations of colour-marked birds of known origin. Such observations may also give some information about the possible exchange between the western European breeding populations.

5. Wintering and migration in Africa. Here the aim is assess the distribution of European populations in western Africa, and to identify the wetlands of importance to stilts. This will be achieved through a census of stilts in Senegal, Mali and Niger; identification of stilts colour-ringed in Europe; and colour-ringing of stilts caught on their wintering grounds in Africa.
6. Habitat selection. Measurement of the characteristics of habitats occupied both during breeding and non-breeding periods, so that a monthly comparison of these habitats can be made. Also an evaluation of the effects of human activities on habitats occupied by stilts (e.g. salines and ricefields).
7. Conservation measures. Assessment of the threats to, and factors affecting, the European breeding populations, leading to proposals for habitat management for stilts.

We would welcome offers of help in collecting some or all categories of data listed above. We are already in contact with a number of people working on Black-winged Stilts. We would be pleased to hear from anyone else who is working on stilts and/or anyone who would like to help in this project. Please contact the organiser, Philippe Dubois, LPO, La Corderie Royale, B.P. 263, 17305 Rochefort Cedex, France.

#### REFERENCES

- Bologna, G. and Petretti, F. 1978. Sul cavaliere d'Italia (*Himantopus himantopus*). *Riv. Ital. Orn.* 48:179-180.
- Cramp, S. and Simmons, K.E.L. (eds.) 1983. *The Birds of the Western Palearctic*, Vol. 3. Oxford University Press, Oxford.
- Dubois, P. and Duhautois, L. 1977. Notes sur l'ornithologie marocaine. *Alauda* 45:285-291.
- Espin, P.M.J., Mather, R.M. and Adams, J. 1983. Age and foraging success in Black-winged Stilt *Himantopus himantopus*. *Ardea* 71:225-228.
- Goriup, P.D. 1982. Behaviour of Black-winged Stilts. *British Birds* 75: 12-24.
- Hamilton, R.B. 1975. Comparative behavior of the American Avocet and the Black-necked Stilt (Recurvirostridae). *Ornithol. Monogr.* 17.
- Heath, S. in prep. Foraging ecology of the Black-winged Stilt in the Camargue's salt marshes.
- Khrokov, V.V. 1982. [The nesting of *Himantopus himantopus* on the lakes of Kurgaldjiro.] *Biul. mosk. o-va ispyt prir. otd. biol.* 87: 34-41.
- Lippens, L., Maes, P. and Voet, H. 1966. De steltkluteninvasie *Himantopus himantopus* 1965 in België en Nederland. *Le Gerfaut* 56: 135-161.
- Robin, P. 1966. Nidification sur l'Iriki, daya temporaire du Sud marocain, en 1965. *Alauda* 34: 81-101.
- Robin, P. 1968. L'avifaune de l'Iriki (Sud marocain). *Alauda* 36:237-253.
- Rome, A. and Travison, G. 1982. Nuovi dati sul Cavaliere d'Italia (*Himantopus himantopus*) in Italia. *Riv. Ital. Orn.* 52: 85-90.
- Tornielli, A. Nidificazione del Cavaliere d'Italia (*Himantopus h. himantopus* L.) in provincia di Parma. *Riv. Ital. Orn.* 29: 286-289.