
Territorial behaviour of wintering Marsh Sandpipers *Tringa stagnatilis*

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Two cases of territoriality of Marsh Sandpipers wintering in the delta of River Senegal are described. Territorial behaviour was observed in sites with rich habitat structures. Birds feeding on open lagoons did not show aggressive behaviour.

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INTRODUCTION

The social system of wintering Marsh Sandpipers is described as non-territorial, although many birds are usually seen feeding alone (Glutz v. Blotzheim *et al.* 1977; Cramp & Simmons 1983). I have not been able to find any published descriptions of territoriality of Marsh Sandpipers outside the breeding season, although Curry-Lindahl (1961) mentioned a fight between two Marsh Sandpipers in Zaire. During an expedition to Senegal from 6 January until 9 February 1990 I had the opportunity to study the behaviour of Marsh Sandpipers in different wetlands in the delta of the River Senegal.

RESULTS

Marsh Sandpipers were observed mainly in three different areas within the delta.

1. Réserve Spécial du Faune de Guembeul

The centre of this reserve is a 300 ha lagoon, which was filled with shallow (maximum depth 25 cm) and very salty water (salinity 7-14%, Dietrich *pers. comm.*). Vegetation or other obvious structures were absent. In the second half of January, up to 17 Marsh Sandpipers feed on Chironomid larvae. The birds were usually solitary and dispersed over the whole area. During many hours of observation, aggressive behaviour was never observed, not even when two birds got very close to each other.

2. Swamps in the inner delta of the River Senegal

In the River Senegal inundation swamps, Marsh Sandpipers fed in small ponds which were usually surrounded by vegetation consisting of Tamarisks, small Acacias, grasses, sedges and reeds. In small ponds (size < 0.1 ha), there

was usually only a single Marsh Sandpiper. Rare encounters between birds did not usually evoke any obvious aggressive reaction. During four hours of observations on a somewhat bigger pond however, I registered two short fights. In one case I followed the winner for about 15 minutes, and during this time the bird did not leave a small bay in the pond. This bay was not visited by any 10 nearby conspecifics. The bird obviously owned a feeding territory.

3. Dune lake near Gandiol

In a small lake (size 1.5 ha) in the dunes along the River Senegal, I observed two Marsh Sandpipers on 15 and 18 January respectively, and three birds on 19 January. On each day, one of the birds defended a small lake bay (1,500 m²) against the other bird(s). Its territory defence seemed to be efficient: none of the conspecifics entered the territory during the total observation time of four hours. The territory defence however, was quite time and energy consuming. During 20 minutes of intensive observation the bird was involved in two fights of several seconds each.

DISCUSSION

Some of the Marsh Sandpipers wintering in the Senegal delta were territorial. Which factors released this behaviour, and why only a small part of the wintering population showed such territoriality remain speculation. There did not seem to be a simple relationship between food resources and territoriality. The density of food (mainly Chironomid larvae) was high in Guembeul and in the dune lake, but it was quite low in the swamp (Dietrich *pers. comm.*). Both sites where territoriality occurred were comparatively well structured. Vegetation edges and the shape of the shore offered natural territory boundaries, which could not be found in the uniform Gembeul lagoon. The presence of natural territory boundaries could be a factor favouring territoriality in wintering Marsh Sandpipers.

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REFERENCES

- Cramp, S. & Simmons, K.E.L. (1983). *Birds of Europe, the Middle East and North Africa*. Oxford, OUP.
- Curry-Lindahl, K. (1961). *Exploration du Parc National Albert et du Parc National de la Kagera, II*. Mission Kai Curry-Kindahl. Bruxelles, Institut des Parcs Nationaux du Congo et du Ruanda-Urundi fasc. 1.
- Glutz von Blotzheim, U.N., Bauer, K.M. & Bezzel, E. (1977). *Handbuch der Vogel Mitteleuropas*. Band 7. Akademische Verlagsgesellschaft, Wiesbaden.

