Poster summary

International Conference
*"**Aquatic Warbler Conservation Achievements**"*
Organized by the Baltic Environmental Forum Lithuania
14 - 15 November 2013, Vilnius, Lithuania

Migration stopover strategy of the Aquatic Warbler *Acrocephalus paludicola* at Gironde estuary and consequences for estuarine wetland habitats management

Raphaël Musseau[1,2,3*], Valentine Herrmann[1,2,3], Sophie Bénard[1,4], Christian Kerbiriou[4], Thomas Herault[5], Estelle Kerbiriou[6] & Frédéric Jiguet[4]

[1]BioSphère Environnement, 52 quai de l'Estuaire, 17120 Mortagne-sur-Gironde, France (biosphere-environnement@orange.fr).
[2]Groupement d'Intérêt Scientifique Atlantic Flyway Network (http://atlanticflyway.org).
[3]Réseau Français d'Ornithologie (RFO), BP 10008, 17120 Cozes, France (www.reseau-francais-ornithologie.fr).
[4]UMR 7204 MNHN-CNRS-UPMC, Centre de Recherches sur la Biologie des Populations d'Oiseaux, CP 51, 55 Rue Buffon, 75005 Paris, France (fjiguet@mnhn.fr).
[5]Conservatoire d'Espaces Naturels de Poitou-Charentes, 44 Boulevard Pont-Achard, F-86000 Poitiers (herault@cren-poitou-charentes.org).
[6]Conseil Général de la Charente-Maritime, 85, Boulevard de la République, CS 60003, F-17076 La Rochelle Cedex (estelle.kerbiriou@cg17.fr).

*Corresponding author, e-mail: r.musseau@biosphere-environnement.com

Abstract:

Along the French Atlantic coastline, the right bank of Gironde estuary has been identified as an important migration stopover site for the Aquatic Warbler. We analyzed radio-tracking, capture-mark-recapture and dropping contents data to identify habitats used by birds, to assess their stopover duration, their fuel deposition rate and to characterize their local diet. Our work revealed the preference of aquatic warblers for habitats with heterogeneous and low vegetation, subject to tidal influence, flooded or partially flooded such as bulrush beds or bulrush-reed beds. The average stopover duration, estimated from models assessing survival and seniority, is 6.2 ± 0.6 days. We demonstrate that during their stopover, lean birds forage significantly more than stout birds (2.7 % vs. 0.2 % of their initial mass each day). Orthoptera, Araneae and Hymenoptera contribute to the main consumed biomass (64.7 %, 13.4 % and 8.9 %). The residence time and the importance of the fuel deposition rate of lean birds reflect the high potential of estuarine wetlands, such as Gironde estuary, for the refueling of birds. Given the alteration risks to habitats (erosion, vegetation homogenization, rise in water levels), the process of given back some reclaimed lands (depolderization) could, locally, prove very helpful in maintaining stopover habitats. To encourage the development of low wet and heterogeneous vegetation, measures like creation of shallow water basins maintained by extensive grazing or late mowing can be considered. Since most of the arthropods identified in the diet are predators, we question the influence of mosquito controls on food webs.

Key words: depolderization, diet, fuel deposition rate, spatial occupancy strategy, stopover duration.