

**Variability in summer distribution of juvenile albacore in the Northeast Atlantic: implications in terms of feeding success and top-down trophic impacts.**

Nicolas Goñi, Haritz Arrizabalaga, Igor Arregui, Igaratza Fraile, Josu Santiago.

Albacore is a highly migratory species present in the whole temperate North Atlantic. An important anomaly in its summer distribution was observed in recent years (2009 to 2011), characterized by an absence or very scarce presence in the Bay of Biscay and a higher local abundance in Southwestern Irish waters. Stomachs of 1448 albacore were collected before (2004 to 2007) and during (2009 to 2011) the anomaly in summer distribution, and their contents were analyzed. Albacore diet displays a high plasticity and an important spatial variability both latitudinally and in terms of oceanic vs shelf-break waters. The present study focuses more particularly on three small pelagic fish species in their juvenile stages: Atlantic saury, blue whiting and anchovy, for which consumption rates by albacore were estimated. Consumption of the three species displays an important interannual variability, probably related to interannual recruitment variations. Atlantic saury consumption also shows a latitudinal variability, appearing more important in the northern part of albacore distribution. Blue whiting consumption appears related to the shelf-break of the Bay of Biscay and Celtic Sea but not significantly to latitude. Anchovy consumption displays an important seasonal and latitudinal variability, being higher in the late summer and autumn in the southern Bay of Biscay. The implications of this spatial and temporal variability, in term of feeding success for albacore during their summer migration, as well as in terms of top-down trophic impacts on these three pelagic species in their pre-recruitment stages, are discussed.

Keywords: North Atlantic, albacore, migration, distribution, feeding success, trophic impacts.

Contact author: Nicolas Goñi, AZTI-Tecnalia, Marine Research Division; Herrera kaia portualdea z/g, 20110 Pasaia (Gipuzkoa), Spain.

e-mail: [ngoni@azti.es](mailto:ngoni@azti.es)