
JIANHONG WU, York University, Toronto, Ontario, Canada

Impact of Environmental Changes on Migration Strategies and its Consequence for Spatial Dynamics of Northern Pintails

The North American population of northern pintails (*Anas acuta*) has suffered a huge decline since 1970s, reflecting long-term reductions in recruitment and alteration of migration routes in response to habitat conditions in migration stopovers. To understand the impact of environmental changes on the population using different migration strategies, we derive and analyze a spatially stratified time-delay differential equations model of seasonal migration for Northern Pintails along the Pacific Flyway.

This talk is based on joint work with Lydia Bourouiba, Yiming Du, Stephen Gourley and Rongsong Liu.