

On possible invasion mechanisms of migrant species

E. Venturino ^{b,1} F. Acotto[‡] and A. Viscardi[◇]

- (b) Dipartimento di Matematica “Giuseppe Peano”, Università di Torino,
via Carlo Alberto 10, 10123 Torino, Italy.
- (‡) Dipartimento di Matematica “Giuseppe Peano”, Università di Torino,
via Carlo Alberto 10, 10123 Torino, Italy.
- (◇) Dipartimento di Matematica “Giuseppe Peano”, Università di Torino,
via Carlo Alberto 10, 10123 Torino, Italy.

Abstract

We will present new models for understanding mechanisms that may lie at the roots of invasions by migrant populations. When the latter cross, even marginally, territories that offer favorable conditions, it is found that they establish permanently in these environments. This investigation is performed via models in which the spatial characteristics are imbedded in ordinary differential systems, reducing their complexity and focusing just on the basic mechanisms of the process.

¹ezio.venturino@unito.it