

# 琉球大学学術リポジトリ

## Connectivity over Ecological and Evolutionary Time from Genetic

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## Connectivity over Ecological and Evolutionary Time from Genetic

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With an area spanning half the world's tropical marine belt, from East Africa to western coast of Americas, the Indo-Pacific region is not only the largest biogeographic province, but is also recognized as the most diverse marine province. With some species restricted to a single island and others occurring throughout the province, the question relate to the dynamic of spreading of species within a biogeographic province as always been and remains the striking point. Within the Indo-Pacific fauna, the majority of tropical marine families have their greatest concentration of species within a comparatively small triangle formed by the Philippines, the Malay Peninsula, and New Guinea. As one leaves this East Indies Triangle to consider the biota of the peripheral areas, there is a notable decrease in species diversity that appears to be correlated with distance and length of the larval stage. Reasons for the present-day distribution are in fact much more complex and difficult to integrate within a single fame.

Recent phylogenetic data showed that speciation and radiation of species occurred in recent times and very rapidly while other species occur throughout the entire range suggesting high potential of dispersal and while recent local analysis are demonstrating high level of self-recruitment and therefore limited larval dispersal.

Considering these various aspects, we propose to integrate all components within a single model in order to understand, over various spatial scales, the forces that structures the fish fauna within the coral reefs of the Indo-Pacific.