**Spillover estimates**

([Kaunda-Arara and Rose 2004](#_ENREF_1)) observed a 6.3 and a 10 km2 coral reefs (with a distance of ~25 km between them). They estimated the spillover by seeing how much of tagged fish were trapped inside and outside a park (weighted by the number of fish traps in each location). Spillover=.

We want the proportion of fish leaving per year. Say is the proportion of fish staying per month, then . The values of spillover given in the paper are 0.003, 0.01, 0.04, 0.07, 0.25 (Table 4) which translate to

, respectively. We can find the exponential parameter and compare to the spillover parameter in our paper:

. We get , respectively.

References

Kaunda-Arara B, Rose GA (2004) Out-migration of tagged fishes from marine reef National Parks to fisheries in coastal Kenya. Environmental Biology of Fishes 70:363-372