SWIMMING INCURSION PATHWAYS - HOW FAR CAN A RODENT SWIM?

Different species have different swimming strengths and this is important information in determining the risk from potential sources based on their proximity to the island. Water temperature, currents, and wave conditions have an un-quantified impact – do not assume that apparently adverse conditions will prevent arrival over distances shorter than those described below. Strong currents, for example, may slacken when the tide turns.

As a guide:

- Brown rats can swim better than black rats which can swim better than house mice. Mice, however, are high-risk stowaway invaders.
- At 50m all rodents can easily swim to an island, and will do so frequently.
- At 500m black rat will invade but the frequency of incursions may be low.
- At 500m brown rat could, in many circumstances, be expected to reach the island every year.
- If the distance is near the currently known record for the species, they can be expected to invade but may not.
- If the distance is twice the currently known record, reinvasion by swimming may not occur but we do not consider it impossible.
- It is only islands several kilometres off-shore where we can categorically say that rodents will not be capable of swimming there. However, the risk of quarantine failure on human-assisted pathways is ever present no matter how far it is.

Guidance on rodent swimming distances

Species	Known swimming capability
House mouse	500m
Black rat	750m
Brown rat	1000m (‘easy’) 2000m (less frequently) 4000m (possible)

Longest distances achieved in cooler (UK) waters may be less than stated, but for the purposes of biosecurity planning these distances should all be considered swimmable in a UK **N.B. As research continues in this area, swimming capabilities are often revised upwards**.