

THE REALM OF SPIRITS



Flanked by a large river to the west and the Beach Bum's northern beach to the east, the Realm of Spirits supports a reclusive population of Island mice. Trapping success rates in the Realm of Sprits are extremely low, with closed-but-empty Sherman traps consuming more than 75 percent of the trap rate. Although the river floods during the spring from snowmelt, Island mice in the Realm of Sprits are able to climb to higher ground to escape drowning or being washed to sea.



Island mice in the Realm of Spirits are the most genetically similar to the Beach Bums, which reflects the annual, winter immigration of some Beach Bum mice into the Realm of Spirits. Researchers have long noticed discarded cocktail umbrellas at the entrance of the Realm of Spirits from the Beach Bum's northern wintering coast. Approximately 50 Beach Bum mice are enticed into the Realm of Spirits for unknown reasons each winter before the Beach Bums head south in the spring.



An unknown potential threat kills approximately 10 percent of the Island mice in the Realm of Spirits each year. Experts at the National Wildlife Forensics Laboratory confirm that cardiac arrest is not the cause of death, but were unable to determine the exact cause of death. Steven "Marley" James described the carcasses of these mice as "frozen in fear as if startled by a spooky ghost."



Realm of Spirits mice feed on shards of cracked coconuts that fall to the ground from the Paradise palms. However, the loud explosions from falling coconuts are a significant source of mortality from cardiac arrest, killing approximately 25 percent of the population each year.

The cold winter trade winds currently blow Skull Mountain's toxic plume away from the Realm of Spirits.



CLIMATE CHANGE

Under high emission scenarios, the expected shift of the cold winter trade winds to the southeast could not only blow Skull Mountain's toxic plume into the Realm of Spirits, but also increase the rate of coconut explosions.

| Survey Year | 1995 | 1996 | 1997 | 1998 | 1999-2001 | 2002 | 2003 | 2004 | 2005-2011 | 2012 | 2013 | 2014 | 2015 |
|------------------|------|------|------|------|-----------|------|------|------|-----------|------|------|------|------|
| # of Individuals | 250 | 250 | 245 | 250 | 250 | 200 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |