

Trees of Life

The name Hurricane Hole might conjure images of howling winds and crashing seas. In fact, this collection of bays on the southern shore of St. John, in the U.S. Virgin Islands, is a sheltered sanctuary whose crystalline waters offer safe haven for young fish. It also protects an incredibly diverse coral habitat. Dominated by red mangrove trees, its shores are lined by a forest of tangled roots. Abundant corals, most of them colorful and healthy, cling to the roots. "The fact that 30 of the Caribbean's 45 coral species live in Hurricane Hole is incredible," says Caroline Rogers, a U.S. Geological Survey scientist who recently discovered the high coral diversity. "You wouldn't expect them to do that well when shallow waters get so warm." The mangrove corals survived in late 2005 and 2006 when more than 60 percent of coral in the Virgin Islands died. A heat wave raised local water temperatures by about a degree, followed by a disease outbreak. Corals are so sensitive that small temperature increases can push them over the edge. Large brain corals were especially hard hit, and only a few survive offshore today. Yet they're plentiful in Hurricane Hole. "We have to determine why the mangrove corals do so much better than corals on the reefs themselves," says Rogers. What they learn could have broad implications, given that rising ocean temperatures threaten corals across the globe, says Richard Aronson, president of the International Society for Reef Studies. Trees might provide shade protection, or it's possible that mangrove ecosystems somehow resist ocean acidification, which degrades the calcium carbonate skeletons that corals deposit to build reef structures. The unique habitat may benefit more than corals. Fish biomass near shores more than doubles when reef and mangrove ecosystems are connected, one study shows. And the mangroves might also be replenishing offshore reefs, which are generally in need of healthy new coral larvae. The protective reach of Hurricane Hole, it seems, could extend far beyond its bays. Read original story by Charles Schmidt [here](#). Hurricane Hole is part of the [St. John \(VI007\) Important Bird Area \(IBA\)](#). BirdLife International's IBA Programme aims to identify, monitor and protect a global network of IBAs for the conservation of the world's birds and other biodiversity. [National Audubon Society](#) is BirdLife's Partner organization in the U.S.A. and is responsible for the IBA Programme at national level. Read more about their work [here](#).