Porites evermanni disease outbreak at Kewalo, Oahu

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On July 15, 2013, Angela Dona-Richards, a UH graduate student and EOR member, reported a possible disease outbreak on Porites evermanni from Nautilus Reef in Kewalo, Oahu. She provided pictures of the affected colonies with lesions appearing as swollen, bright pink patches (Fig. 1). On August 6, 2013, a multi-agency response team was sent out to investigate consisting of USGS (Dr. Thierry Work, Renee Breeden), DAR (Jono Blodgett, Derek LeVault) and UH/HIMB (Dr. Greta Aeby, Maya Walton, David Slater). We located the site of the outbreak at a subsurface buoy on Nautilus Reef (GPS: 21.28630 157.86061). A 25-meter line was laid out and surveyed. The site is a spur and groove zone and the affected area was on top of a spur at approximately 30ft in depth. It was a low relief reef with 15.7% coral cover. 26 P. evermanni colonies were counted along the 25x6 m belt transect of which 12 were affected by the disease (prevalence=46.2%). Dr. Work collected samples of affected colonies for histological analyses. This is significantly higher disease prevalence as compared to other outbreaks surveyed. These lesions are very similar to what was found on 11 of 29 P. evermanni (prevalence=38%) on the Big Island in 2004 (WHAP site 15)(Fig. 2). It is recommended that the Kewalo site be re-surveyed on a monthly basis to study and monitor the progression of the disease.

Fig. 1. P. evermanni with pink, swollen patches. Black and white scalar bar approximately 10 cm.
Fig. 2. *P. evermanni* swollen, discolored patches on a reef in Kona in November 2004.