

Ecosystem Benefits of Flagship Species Conservation: Piai's success story

Geoffrey Gearheart & Ferdiel Ballamu

(Source: Proceedings of the Twenty-Eighth Annual Symposium on Sea Turtle Biology and Conservation¹)

The Island of Piai, located in Northwest Raja Ampat, W-Papua, Indonesia (0°20'41" N; 129°52'00" E), was first visited by conservation scientists during a Rapid Assessment expedition in 2002. In spite of its small size of approximately 115 Ha, it appeared to be a significant green turtle rookery. In 2005 we returned to tag Indonesia's first 5 green turtles. During that trip it became clear the rookery was under intense threat of poaching by villagers from Ayau, N-E of Piai: in one night, poachers could kill up to 30-40 turtles. Conservation International-Indonesia sponsored local NGO "PSTF" (Papua Sea Turtle Foundation) to start a conservation project on Piai. To achieve this, PSTF initiated talks with the owners of Piai, two clans living on a distant Island (which played in marginal role in the poaching). A step-by-step approach enabled to 1) create a strong sense of awareness that their resource was "special" but threatened, 2) obtain their approval to protect Piai as well as neighboring Sayang from poachers. Discussions with community members revealed, surprisingly, that sea turtles are esteemed (stemming from the consumption of turtle meat in Church celebrations) if not considered charismatic. This feeling was enhanced after STAT maps were shown of the long migration routes of Piai's 5 satellite-tracked turtles. Community patrolmen, young men from the aforementioned clans, were employed by PSTF. Since December 2006 they have lived full-time on Piai to carry out daily beach patrols and collect nesting data. The impact of the project is exceeding its initial goal of stopping all poaching. Indeed, illegal blast-fishers and shark finners, common in Raja Ampat, have not been reported in the waters surrounding Piai and Sayang since beginning 2007. The mere presence of patrolmen, some of them equipped with makeshift wooden M16's, seems to be an effective deterrent against destructive fishers. One has to understand that shark finning, blast fishing and sea turtles are intimately related. Due to the extraordinary demand from China, shark finning is now one of the most lucrative fishing activities in many areas of Indonesia, including Raja Ampat. Sharks are caught either with bottom nets (often measuring several kilometers in length) which also catch large numbers of turtles, especially in foraging areas, or by long lining. As there is no time to catch baitfish the conventional way, fishermen use explosives. They go to pristine reef areas, throw a couple of bombs, and scoop up the dead fish to bait their hooks. They have also realized that sea turtle internal organs, especially the liver, make excellent bait. So they often stay on nesting beaches to intercept nesting turtles, and slit them open to extract their livers. So, the story can be reduced to this simple equation: 1 adult sea turtle= 7-10 shark fins. On Piai, the daily patrols have put an end to that threat. As a result, reefs are protected and there has been a dramatic increase in the number of small reef sharks. With over 950 nests laid during the period of January-November 2007, Piai is now on the map of Indonesia's major green sea turtle rookeries. To crown PSTF's success, the Wayag-Sayang MPA was gazetted in December 2006. PSTF's conservation formula, specific to Raja Ampat's social and cultural fabric, is now being exported to new critical sea turtle habitats in West Papua, including a hawksbill nesting site on the north of Wayag (S-E of Piai). The use of a widely acknowledged "flagship" as a focal point for conservation enables to quickly gain local stakeholders' support

¹ <http://www.nmfs.noaa.gov/pr/pdfs/species/turtlesymposium2008.pdf>

(an effect harder to achieve with less popular “keystones”, e.g. sharks, groupers) and provides the backbone for further conservation initiatives (e.g. water patrol system, alternative livelihood programs, conservation concessions, SPAGS protection). In this specific case, the conservation benefits supersede the species level to reach the surrounding ecosystems. This finding may be of use for future seascape-level conservation programs.