Recreational diving is traditionally viewed as an ecologically sustainable activity. Little is known about the effects of recreational diving on sea turtle populations. **Goal:** to determine if differences in dive site use and habitat composition can affect the rate of Hawksbill sea turtle (*Eretmochelys imbricata*) sightings in a marine protected area. **Hypothesis:** Hawksbill sightings rates will be higher for sites with heavy diving pressure.

### Methods

**Turtle Sightings and Dive Logs**
- We distributed turtle sightings survey forms to 14 dive operations over 4 months.
- Dive logs were collected from 2 dive operations for 3 months.
- Hawksbill sightings rates were mapped against diver density using ArcMap GIS.

**Habitat Assessment**
- Habitat surveys were conducted of 12 hawksbill foraging sites.
- We photographically surveyed 5–7 transects at each site using a 30 m transect and 1 m² quadrat.
- We analyzed habitat using CPCe 14 software (Fig. 1).

### Results

**Turtle Sightings and Dive logs**
- 666 hawksbills, 420 greens, 4 loggerheads, and 22 unknown sightings from 701 dives.
- Dive logs at 46 sites for 5342 divers on 1014 dives (Multiple divers on each dive).

**Spatial Distribution (Fig. 2)**
- No relationship between turtle sightings and number of divers at each site.
- No relationship between turtle sightings and number of divers per dive at each site.

**Monthly variability**
- Total hawksbill sightings peaked in July and was lowest in September (Fig. 3).
- Sightings survey effort peaked in July and was lowest in September (Fig. 4).

**Habitat Assessment**
- 5 sites: Algae abundance high (>60%).
- 12 sites: Algae abundance moderate (<60%).
- 3 sites: Coral abundance low (<10%).
- 9 sites: Coral abundance moderate (>10%).
- High coral abundance did not correlate with low algae abundance.

### Conclusions

**Habitat**
- Heavily dived sites did not significantly differ in habitat composition from sites that were not heavily dived.

**Turtle Sightings and Dive Logs**
- Recreational diving did not impact hawksbill sightings rates over a 4 month period, suggesting that hawksbill abundance is independent of diver presence.

- Additional sightings and habitat studies should be conducted to determine if recreational diving effects hawksbill sightings rates over multiple seasons.

### References


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