

Video-taped Transects

Purpose

To document the general appearance of each site along the fixed lead line transect

Materials

- 1 camcorder
- 1 U/W housing
- 1 digital video tape
- 1 dry erase board

Personnel

- 1 SCUBA equipped diver familiar with this methodology and a dive buddy (the dive buddy is often conducting visual fish transects simultaneously).

Methods

****IMPORTANT: READ THE ENTIRE INSTRUCTION MANUALS FOR BOTH THE CAMERA AND THE VIDEO HOUSING BEFORE USING THE VIDEO EQUIPMENT!!!****

The diver should follow similar procedures employed for the visual fish transects. The camera operator will make two passes along the transect line, one up the right side and one down the left side. The camera should be positioned approximately two meters above the bottom. Each pass should take approximately 5 minutes.

This monitoring technique uses very expensive and fragile video equipment. It is vital that the operator understands how the equipment works and follows instructions carefully. Follow these steps to prepare, set-up, and operate the underwater video camera only after reading the instruction manuals.

Before the cruise

- Charge all batteries
- Make sure all camera settings are correct. Once set, they will remain until manually changed. Make sure record mode is 1080p, Wide select is 16:9, I-Link conversion HD to DV is OFF.

Pre-dive

- Find a DRY, CLEAN place to work.
- Check to make sure the camera turns on and has enough battery power for 30 minutes of recording.
- The camera should be zoomed out all the way to the wide angle in order to capture the most area.
- Install the camera into the U/W housing and inspect the seal to ensure the o-ring is seated properly.
- Label a dry-erase board with the date, island and site location.
- Focus the camera on the labeled board and record the information for about 10 seconds.
- Before getting in the water, complete a surface pan of the site. Record the surface of the water directly above the transect line, including any pelican buoys that may be marking the transect, and record the coastline of the island adjacent to the site.

On the transect

- Make sure the camera is recording.
- Starting at the 0 meter end, begin recording with the 0 m bolt in the frame for visual reference on the video. Swim along the right side of the transect. While swimming along the transect, hold the camera about 2 meters off the bottom at a slight downward angle keeping the transect line showing in the upper left hand corner of the video frame for the duration of the transect. End the video with the reel of the meter tape in the frame, as a visual reference. The 100 meter video transect should take approximately five minutes.
- At the end of the transect, place the video in the Stand-By mode.
- Repeat the procedure for the other side of the transect beginning at the 100 meter end.
- Turn the camera off.

Back on the boat

- Rinse the housing and dry it.
- Put the housing in safe, dry location.
- Remove the camera from the housing and recharge the batteries if needed.
- Review the video as soon as possible to ensure that it is in focus and the entire length of the transect was recorded.

Time Required

Approximately 20 minutes of bottom time.

Organisms Sampled

Kelp forest community.