

BLAGRRA Emergency, Rapid-response Line-transect Protocol – Version 10/2006

Equipment:

- One 11-m long transect line with a zip tie or tape attached 0.5 m from one end and every meter thereafter (ending 0.5 m from the other end). Lead-core weighted line works better than polypropylene.
- One 50-cm PVC measuring pole marked in 10 cm increments, metric ruler, or metric measuring tape.
- One clipboard or slate to which copies of the BLAGRRA line-transect UW datasheet, printed on UW paper, are attached with clips or rubber bands.
- One 25 × 25 cm PVC quadrat to carry the line and other equipment.

See the AGRRA Methodology, Version 4, 2005 at www.agrra.org/method/methodhome.html for details on the construction of the equipment described above.

1. At each site, record the following information on your UW datasheet before each dive.
 - Recorder Name:** Use 4-letter code: first two letters of first and last names
 - Date:** Day with two digits/abbreviation of month/year with two digits (*e.g.*, 15 Oct 06)
 - Latitude & Longitude:** Preferably as determined by GPS
 - Site Name:** Name of dive site (if known) or generic description of location (*e.g.*, Mahahual Sur)
 - Site Code:** Sequential site code ID number for quick reference (*e.g.*, MEX007)
 - Reef Type:** (*e.g.*, bank, barrier, fringing, patch). *If the site appears different from that expected, please describe the actual reef type following the survey.*
 - Reef Zone/Habitat:** (*e.g.*, reef crest/back reef, fore reef/spur and groove). *If the site appears different from that expected, please describe the actual reef zone/habitat following the survey.*
2. In **Start Time**, record the time at which you start the first transect. Haphazardly locate a starting point and lay the 10-m transect line just above the reef surface. You can carefully tie one end to a dead piece of coral, or other secure object that wouldn't be easily damaged. Alternatively, you may choose to attach loops of string to the ends of the transect line which may be looped around objects. At the end (past the 10-m mark), pull tightly just enough to secure the line. Make sure the line is taut. *Be sure to avoid, and do not cross, any other transects that are being set by your companions. Stay away from the edges of the reef. Also try to avoid areas with abrupt changes in slope, deep grooves, large patches of sand or unconsolidated coral rubble. You want to place the transect in areas where corals are likely to grow, but once you are in an appropriate spot, don't bias your selection and swim without looking down at the bottom as you unreel the line. Unusual reef features should only be included to the extent appropriate to their relative abundance at the site.*
3. When the line is secured, note the **End Depth** at the 10-m mark. Then examine every stony coral underlying the line between the 10-m and 0-m marks. Use the 0.5 m pole, metric ruler or metric tape to measure the line-intercept length (in cm) of all live tissues by color class, as "**normal**", "**pale**" or "**bleached**." *Multiple intercept lengths of the same category may be added together as sub-totals to save time writing because the data are intended to be a summary for all stony corals beneath the line.*
4. Note the **Start Depth** at the 0-m mark. Then reexamine every stony coral underlying the line between the 0-m and 10-m marks. Measure all freshly exposed skeletons having white, intact corallite surfaces ("**new death**"). *Multiple intercept lengths may be added together as sub-totals because the data are intended to be a summary for all stony corals below the line.*
5. Record any relevant observations in the **Comments** column (*e.g.*, names of the most common corals, evidence of coral disease, predation).
6. Repeat the above steps for a total of 10 transects per site. The 10 transects may be divided between two recorders to allow the site to be completed more quickly, and to provide safer dive profiles for deeper sites.
7. After surveying, enter all data for each site into a site-specific electronic copy of the BLAGRRA line-transect spreadsheet (available along with other BLAGRRA documents at www.agrra.org/BLAGRRA/). Print a copy of each spreadsheet, and compare the information for each transect with that on the corresponding UW datasheet. Correct any errors in the spreadsheets and email the corrected spreadsheets to data@agrra.org. Back up your own data regularly and store it in a safe place with your original datasheets should clarification be necessary during data processing.