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STANDARD OPERATING PROCEDURE (SOP) - 2

DEPLOYMENT AND COLLECTION OF WINDOW SCREEN DEVICES

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A/ List of equipments

- A boat fully equipped with regulation safety equipment
- Snorkeling equipment and diving gear
- x5 fully-assembled window screen devices
- x5 plastic screw cap bottles (500 mL) used as containers for collected window screens
- A Global Positioning System (GPS) device for accurate localization of the sampling sites
- A waterproof thermometer
- A depth meter
- A diving slate and a pencil
- A permanent marker
- A cooler

B/ Deployment of WS devices

The detailed procedure can be viewed on the video tutorial available online on the CIGUAWATCH platform : <https://ciguawatch.ilm.pf/ciguatera-environmental-monitoring-methodology-2/>

- Label each window screen device with a permanent marker (note sample number and date of deployment)
- Record the GPS coordinates, seawater temperature and depth at the deployment site
- Collate all these information along with name of site, sample number, date and time of deployment on the diving slate
- Deploy the WS devices preferably at depths between 1.5 and 3 m
- For statistically robust information, at least 5 Window screen devices should be deployed per sampling site
- The deployment time should not exceed 24h, to avoid significant biofouling or grazing pressure

C/ Collection of Window screen devices following a 24h deployment period in the field

- Label each 500 mL plastic container with sample number, date and time of collection
- Unscrew the cap and fill the plastic bottle with seawater

- Gently unclip the screen from rope. Be careful not to shake or touch the screen to minimize the loss of material from the screen
- Gently fold and insert the screen in plastic bottle
- Cap the sampling bottle underwater and bring to surface
- Pick up the rest of the device

D/ Hints

- Best deployment sites are those in low-energy environment (no current or wave action) nearby coral reefs colonized with macroalgae
- Screens should not rub against the lead weight
- Screens must remain suspended in the water column at all times
- Avoid touching or scratching the micro-algal cell mat attached on the screen
- Keep the samples near the ambient water temperature and avoid exposure to direct sunlight by placing the samples in a cooler until sample processing
- If you do not have a depth meter, you can make one using a rope attached to a lead weight and marked every 50 cm

E/ Personal Protection Equipment

- Wearing a pair of diving gloves during field deployment of WS devices is recommended