

Monitoring Coral Spawning 2023: collecting nets and more predictions

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SCTLD Caribbean Cooperation
Team Partners meeting

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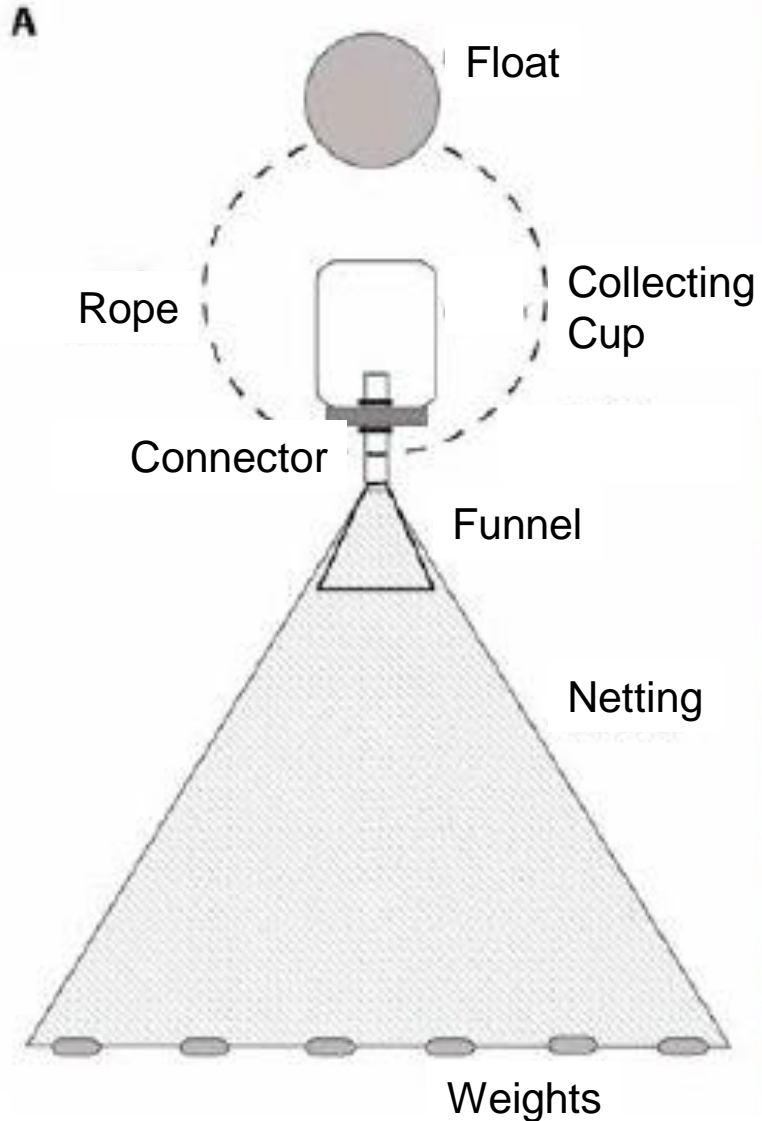
Photo by Paul Selvaggio





FABRICATION OF COLLECTING NETS

Coralium net



Fabrication

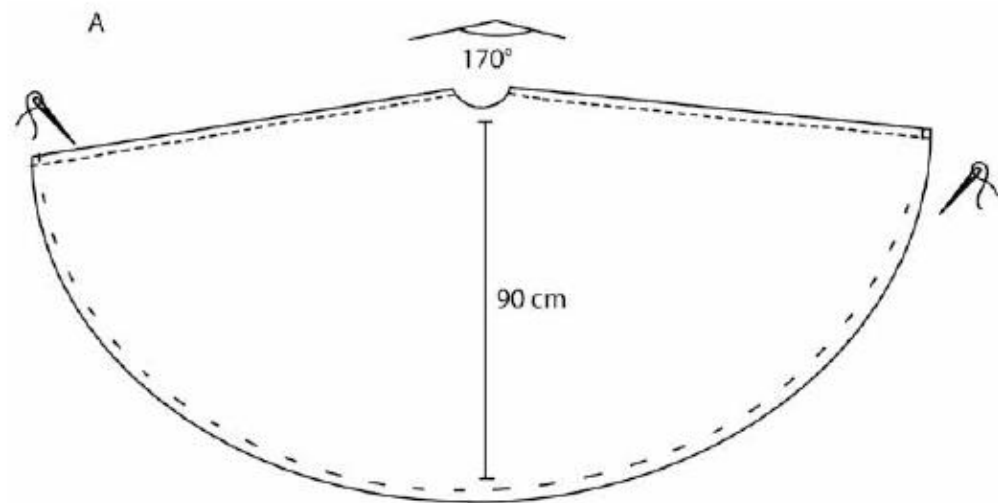
- Corallium video available

By request:

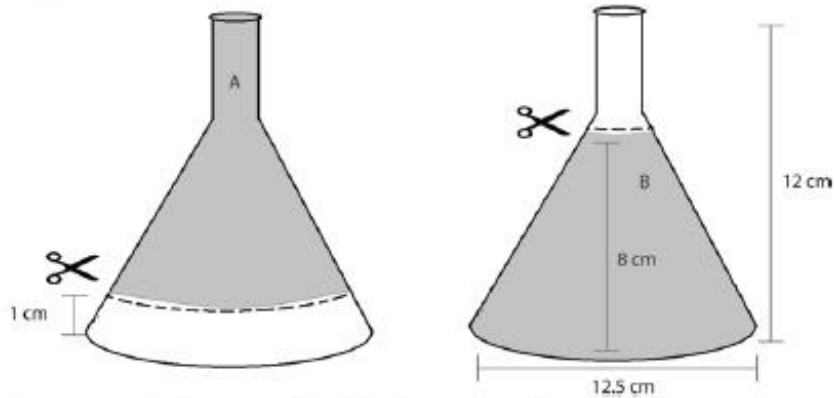
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- Instruction manual with guidelines

<https://icriforum.org/coralrestoration/>



Coralium net



Posteriormente, se lija la cara exterior del embudo A y la cara interior del embudo B. Finalmente, se introduce el embudo A en la red, se cubre con pegamento PVC, así como la cara interior del embudo B y se inserta el embudo B de tal forma que la red quede entre los dos embudos (Figura 1.3) y se deja secar por 24 horas.

FIGURA 1.3. Proceso de pegado de embudos. (A) Aplicación de pegamento a embudo A y red. (B) Aplicación de pegamento a la cara interior del embudo B. (C) Ensamble del embudo A, la red y el embudo B (D) Aspecto final.





PLACEMENT OF COLLECTING NETS

Staging area for distribution



Correct placement of collecting nets



Make
sure to
remove
all
bubbles



Excess of nets on a colony
Limit to one per colony
(no matter how big the colony is)



Correct collecting net placement



Do not try to cover the whole colony with one net





During spawning monitoring

- Review nets periodically for bubbles and for spawn
- Avoid light directly on the nets and collecting cup (attracts predators)
- Make sure to place lid on collecting cup correctly and maintain lid side down
- Ensure time of setting (if seen) and spawning (start and end) is logged

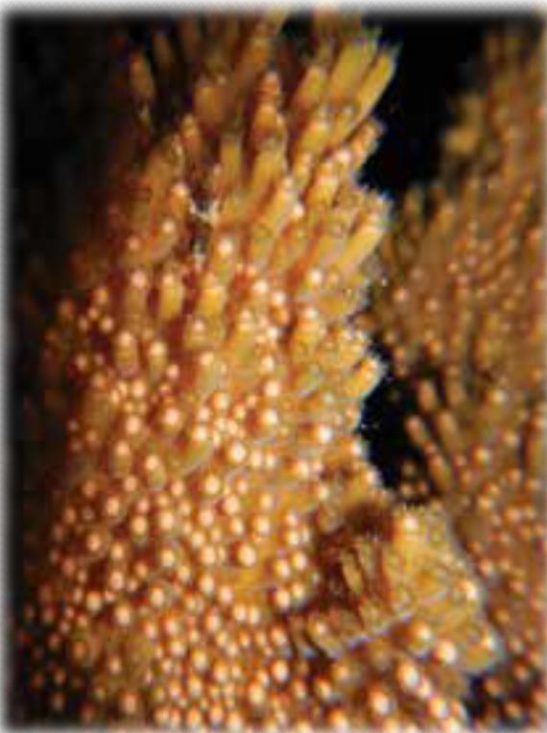


Foto: Edgar Escalante





Sandra Mendoza Quiroz



Mike Gerrie



Coral Spawning Research



Dlab SPAWNING UPDATE

Dlab spawning predictions

Date of Full Moon		Predicted dates of Dlab spawning					
		NAFM	9	10	11	12	13
June	3rd	June	12th	13th	14th	15th	16th
July	3rd	July	12th	13th	14th	15th	16th
August	1st	August	10th	11th	12th	13th	14th
August	30th	September	8th	9th	10th	11th	12th
September	28th	October	7th	8th	9th	10th	11th

- Predicted times of Dlab spawning:
 - Setting: from 30 to 55 minutes BEFORE Sunset
 - Spawning: from 10 to 100 minutes BEFORE Sunset

Citations:

KL Marhaver, VF Chamberland, and MJA Vermeij, “Coral Spawning Predictions, Southern Caribbean, 2007–2023.” CARMABI, Curacao

Sellares, R.I., Villalpando, M.F., & Valdez, A. “Predicción desoves de coral, sureste de República Dominicana 2019-2023.” FUNDEMAR, República Dominicana.

AT Banaszak, S Mendoza Quiroz, V. Grosso Becerra “Coral Spawning Predictions, Mexican Caribbean, 2007–2023” CORALIUM-UNAM, Mexico

Reports on Coral Spawning Research FB page

- Cuba

- Acuario Nacional de Cuba, Universidad de Habana)
 - 12, 13, and 14 June (3, 6, and 6 of 79 colonies)
 - 9-11 NAFM
 - 18:53-19:35 h

- Dominica

- Nature Island Dive
 - 14 June (3 of 21 colonies)
 - 11 NAFM

- USA

- Florida Aquarium Center for Conservation
 - 13 and 14 June at 18:12-18:45 (9 and 5 of 22 colonies)
 - 10-11 NAFM

- Mexico

- No spawning observed

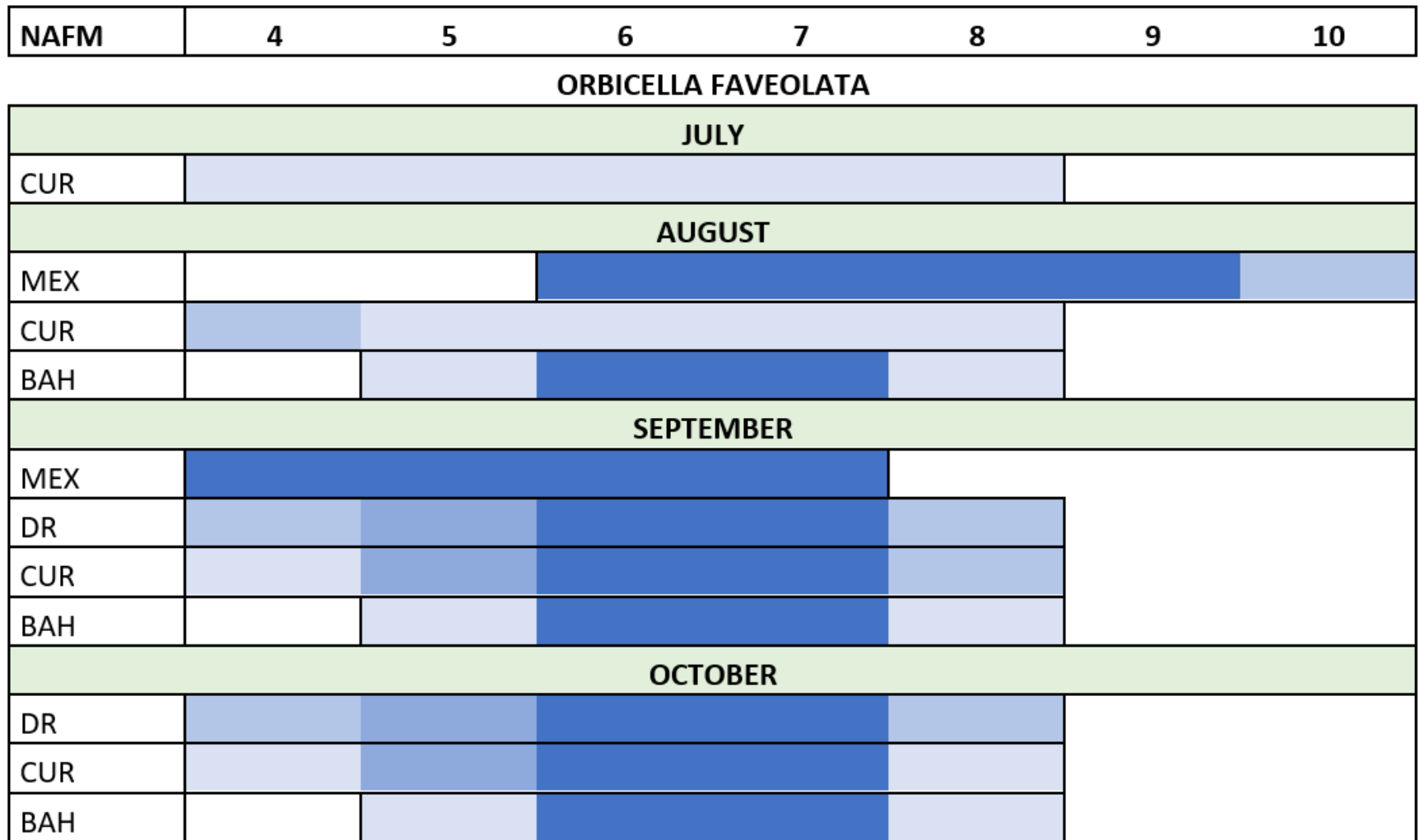
Do we have more DLAB reports for June?

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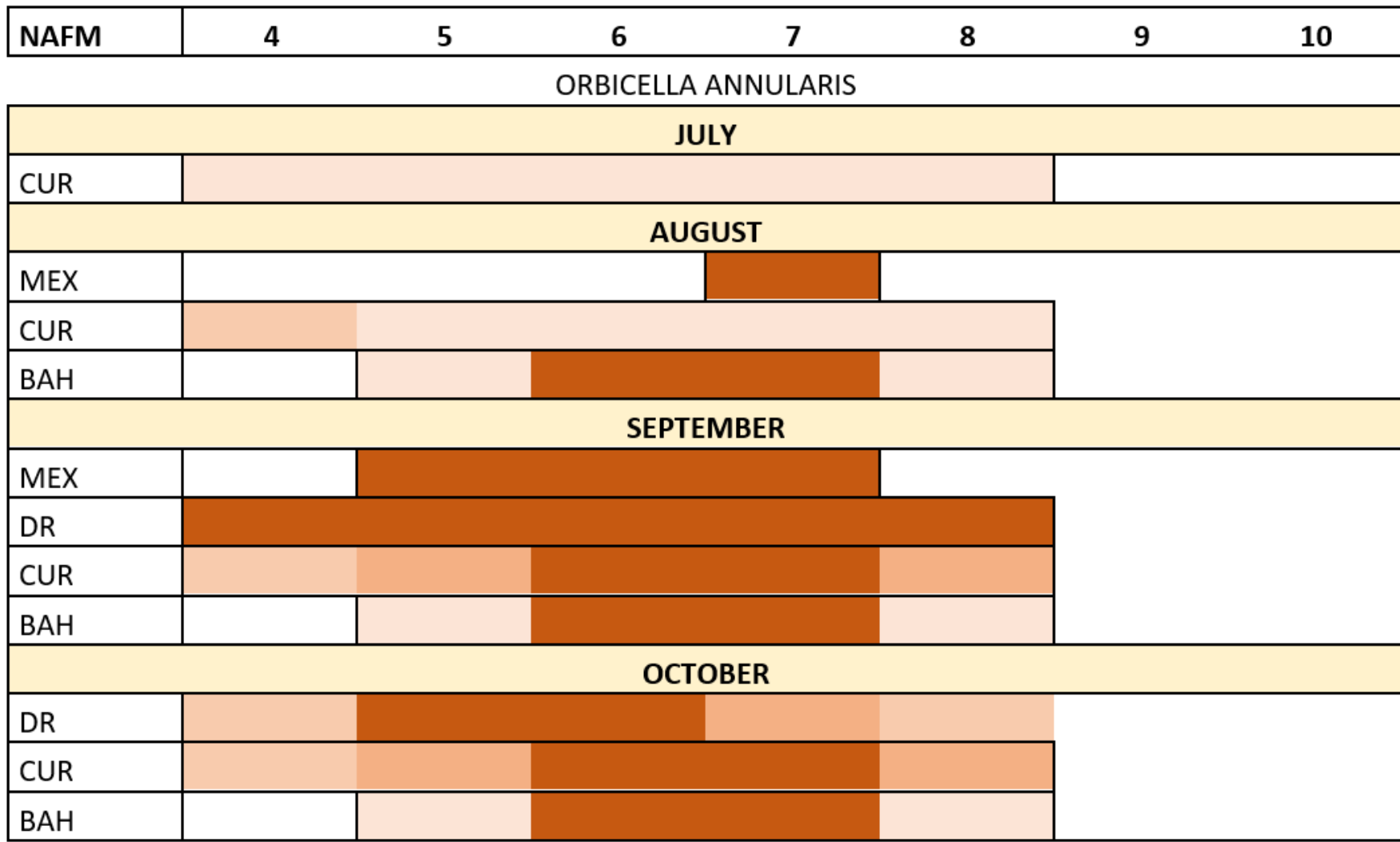
Photo by Edgar Escalante Mancera



Other Species Spawning Predictions



- Spawning: 185-255 minutes after sunset
- Dominican Republic 130-150 and 220-270 minute after sunset



Spawning: 185 – 250 minutes after sunset

Pseudodiploria strigosa

- 6-8 NAFM
- August, September and October
- Early group: 35 to 100 MAS
- Late group: 140-145 MAS (DR), 180-270 MAS (Mex) and 205-270 MAS (Cur)

Video by Raul Tecalco Renteria



Meandrina meandrites

- Gonochoric (separate females and males)
- Lacks a clearly defined spawning window
- 5-31 NAFM in September, October and November
- 10 – 70 MAS
- Data from Curacao and O'Neil et al 2021 FMS Repeated *ex situ* Spawning in Two Highly Disease Susceptible Corals in the Family Meandrinidae



Questions?

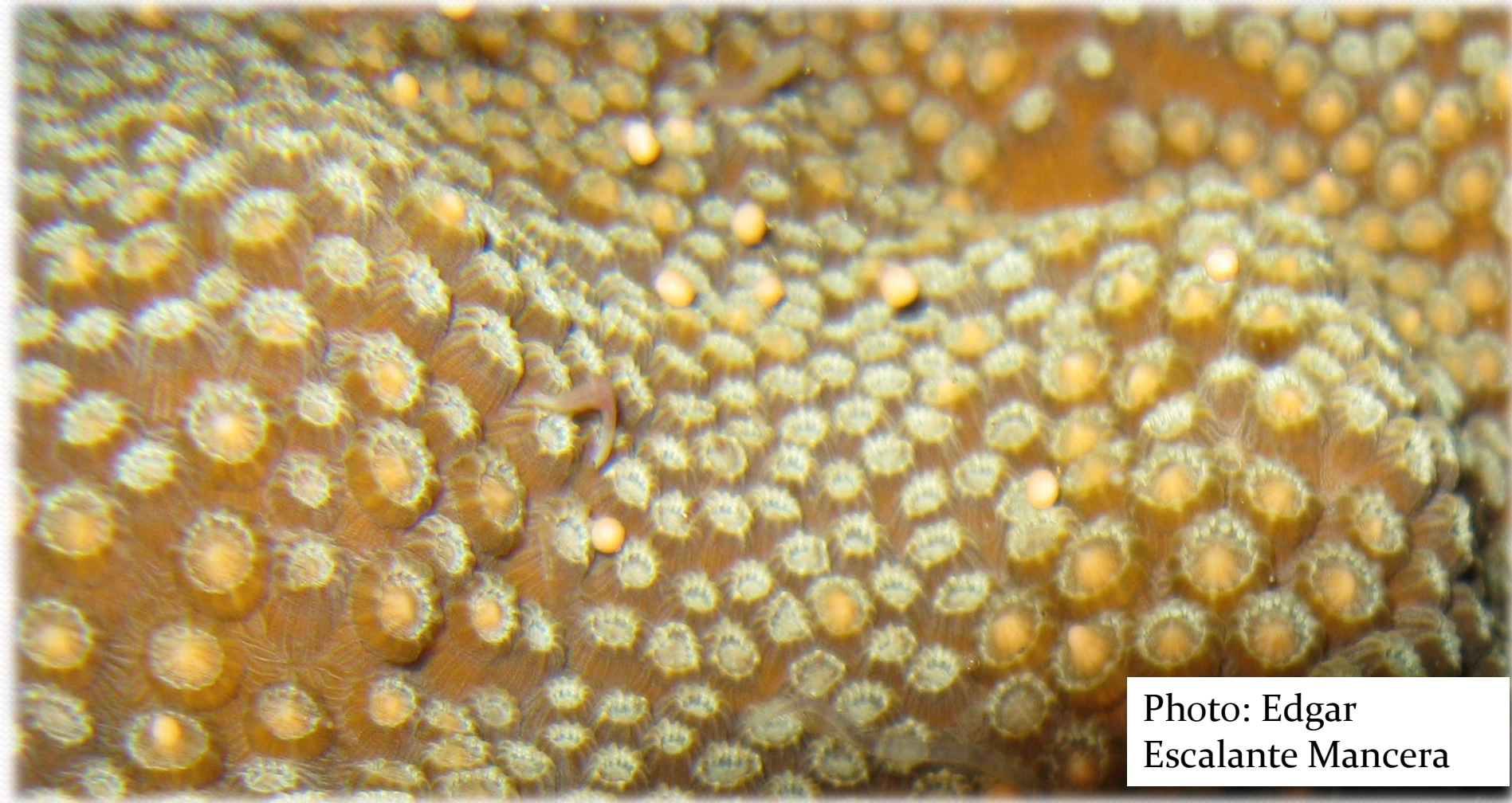


Photo: Edgar
Escalante Mancera