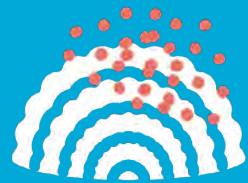


CORAL SPAWNING PREDICTIONS

THE BAHAMAS 2023

Co-authored by Natalia Hurtado, Silia Woodside, & Lily Haines

THE BAHAMAS CORAL INNOVATION HUB



The **Bahamas Coral Innovation Hub** is a center for development, implementation and dissemination of **scalable coral restoration techniques** to help counteract coral reef decline. The research facility **based at Cape Eleuthera Island School**, hosts a network of integrative people, such as coral scientist, conservation managers, local stakeholders, students and educators from around the world. Located in South Eleuthera in The Bahamas, the Hub is a collaboration between the **Perry Institute for Marine Science (PIMS)**, the **Cape Eleuthera Institute (CEI)** and **The Nature Conservancy (TNC)**.

The Hub is **led by Research Scientist Natalia Hurtado** who has been compiling the coral spawning predictions for The Bahamas since 2020, based on previous and current observations the predictions have been accurate with identified peak dates for mass spawning in The Bahamas. The information is meant to help local scientist, grassroots nonprofits, dive organizations and volunteers to work together with larval propagation techniques to **enhance sexual coral reproduction of corals**.

Within this booklet, we intend to show **examples of key Caribbean coral species spawning** to help divers train their eyes to these stunning events. To share observations and/or questions don't hesitate to get in touch with our scientist on site (nhurtado@perryinstitute.org).



Research scientist
Natalia Hurtado



SPAWNING ZONES

for The Bahamas

1

Bimini, Grand Bahama,
The Abacos, The Berry
Islands, Andros, Nassau
& Paradise Island

2

Eleuthera & Harbour Is-
land, The Exumas, Rag-
ged Island, Long Island,
Musha Cay, Cat Island,
Conception Island, Port
Nelson

3

San Salvador, Acklins
& Crooked Islands,
Mayaguana, Inagua
Islands, Little Inagua
Island



ZONE 3: SAN SALVADOR, ACKLINS & CROOKED ISLANDS, MAYAGUANA, INAGUA ISLANDS, LITTLE INAGUA

Staghorn coral (140 - 190 min AS) <i>Acropora cervicornis</i> (Highly unpredictable 3,4,7,8?)				22:15 - 23:05 22:05 - 22:55	22:05 - 22:55 21:55 - 22:45			
Mountainous star coral (210 - 270 min AS) <i>Orbicella faveolata</i> (5,6,7,8)								
Lobed star coral (190 - 260 min AS) <i>Orbicella annularis</i> (5,6,7,8)								
Great star coral (late) (190 - 240 min AS) <i>Montastraea cavernosa</i> (5,6,7,8)								
Symmetrical brain coral (215 - 260 min AS) <i>Pseudodiplora strigosa</i> (5,6,7,8)								
Smooth flower coral (180 - 230 min AS) <i>Eusmilia fastigiata</i> (6,7,8,9)								
Blushing & Smooth star coral (210 - 240 min AS) <i>Stephanocoenia intersepta</i> & <i>Solenastrea bournoni</i> (6,7,8,9)								



TIPS

★ Most of the species listed are hermaphroditic broadcast spawners, meaning their polyps release BOTH eggs and sperm contained in gamete bundles. Gonochoric species such as *Montastrea cavernosa* are also listed, meaning these colonies release EITHER eggs or sperm.

★ Predictions are based on previous observations in The Bahamas, Caribbean and the northern Caribbean.

★ For monitoring dives, it is recommended to dive on the highlight dates, but spawning may occur the day before and/or after.

★ Adjust personal watch with the local time.

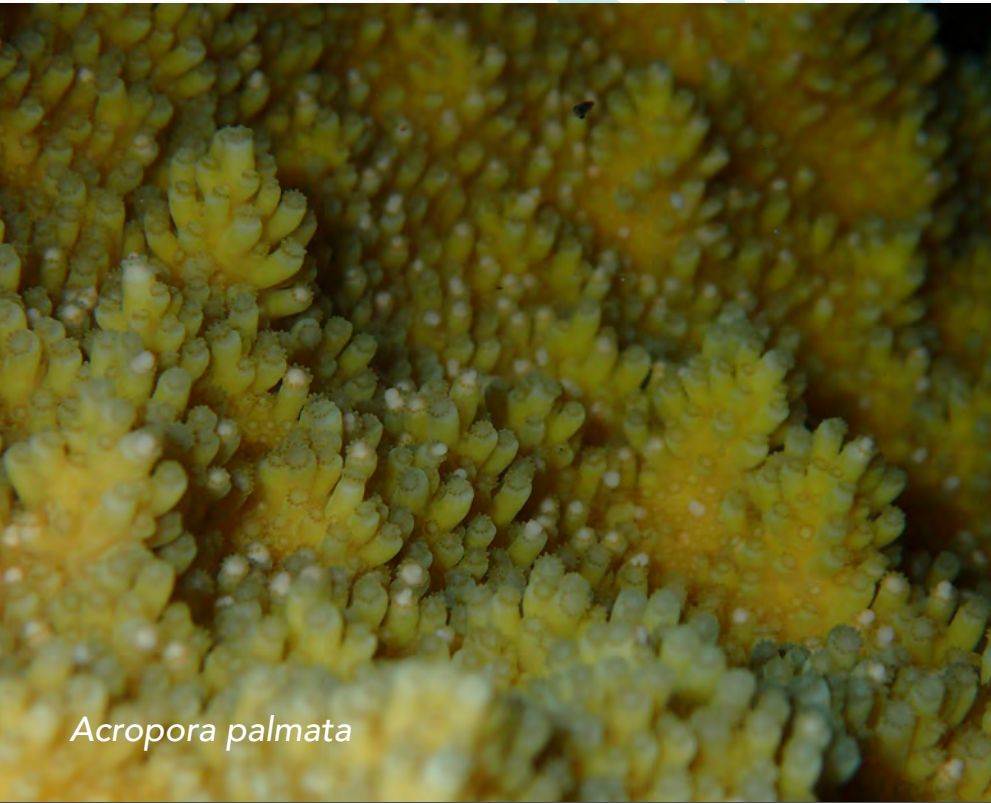
★ Find a shallow area (max. depth: 50 feet/15 meters) with high coral cover, plan your dives and follow bottom times respecting no-decompression times and diving rules.

★ It is possible to observe other reef creatures, such as soft corals, brittle stars, sea urchins, Christmas tree worms, sea cucumbers, etc. releasing gametes; please note all spawning observations.

★ For any questions or to submit spawning observations (location, date, time & species) in The Bahamas, please contact Natalia by email at nhurtado@perryinstitute.org



HERMAPHRODITIC CORAL SPAWNERS



Acropora palmata



Eusmilia fastigiata



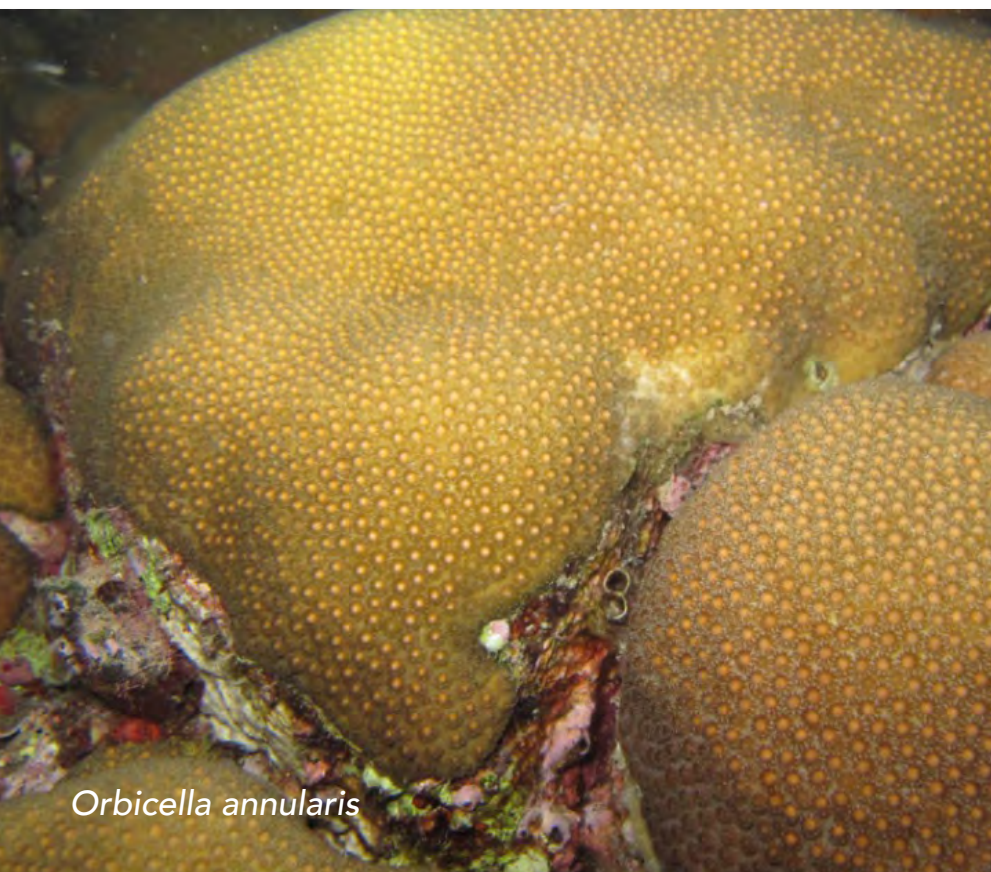
Diploria labyrinthiformis



HERMAPHRODITIC CORAL SPAWNERS



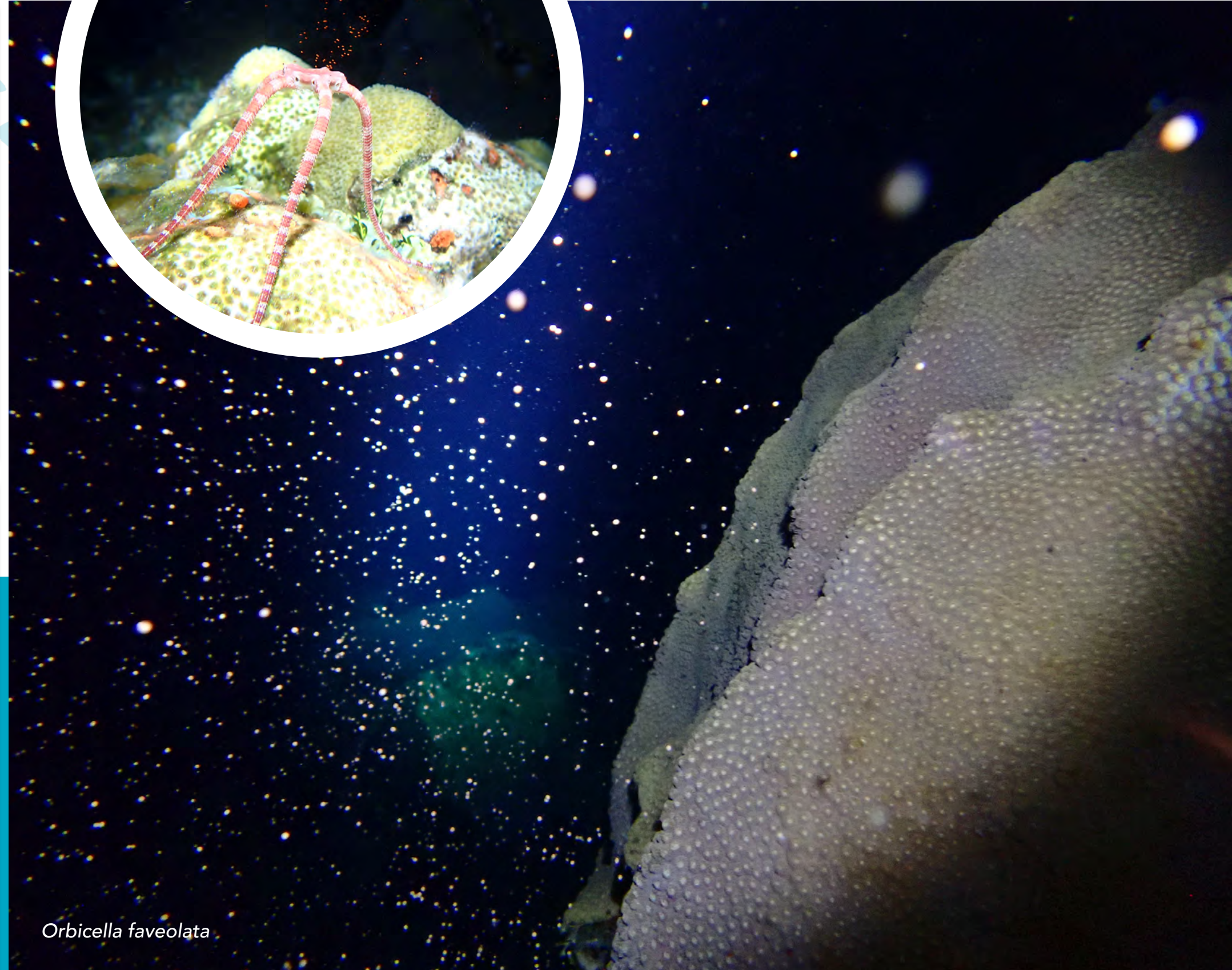
Colpophyllia natans



Orbicella annularis



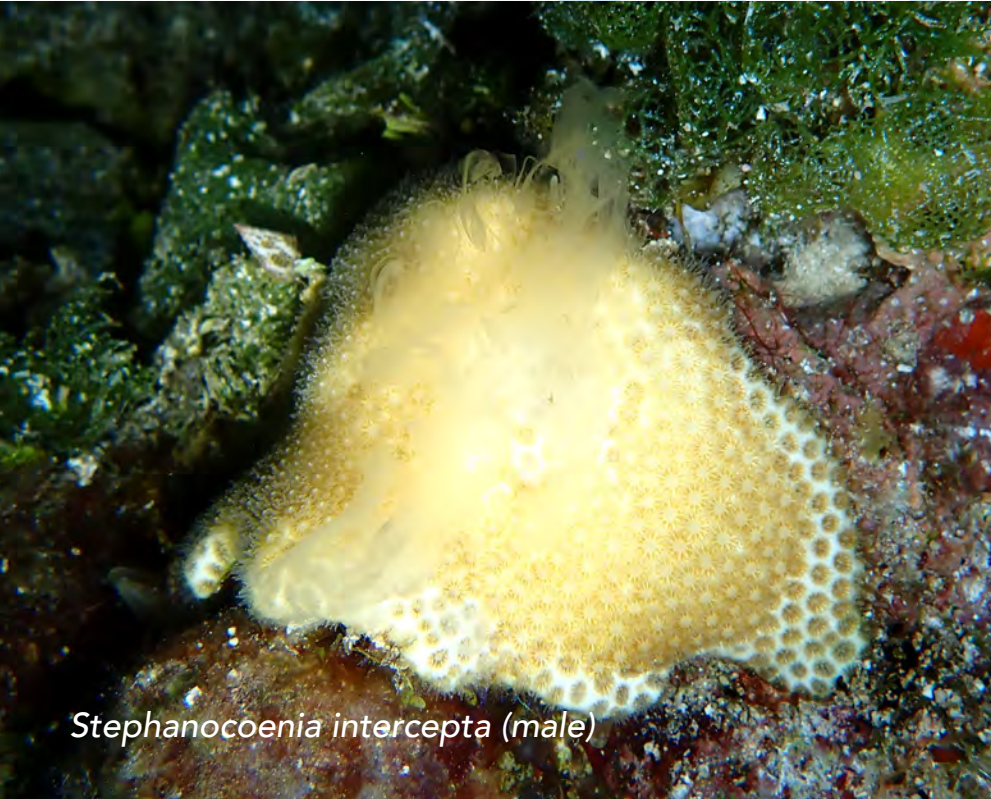
Don't forget to record spawning of all reef creatures, including brittle stars (pictured)



Orbicella faveolata



GONOCHORIC CORAL SPAWNERS



Stephanocoenia intercepta (male)

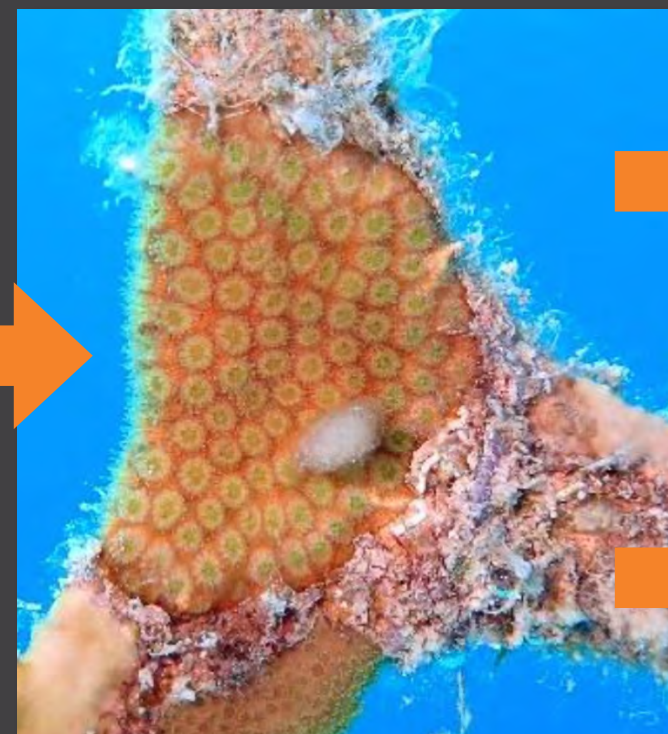


Montastrea cavernosa (male)



Solenastrea bournoni (female)

O. FAVEOLATA FROM SPAWN TO JUVENILE



BAHAMAS CORAL INNOVATION HUB

THANK YOU!



Citation: Hurtado-López, N., S. Woodside and L. Haines. "Coral Spawning Predictions, The Bahamas 2023." The Bahamas Coral Innovation Hub, Perry Institute for Marine Science & Cape Eleuthera Island School, The Bahamas.

Creative design and original idea: Lily Haines (PIMS)

Photos: Natalia Hurtado (CEI/PIMS): Cover, EFAS, DLAB, CNAT, OFAV, Brittle star, SINT, MCAV, SBOU, Tiger tail sea cucumber, OFAV (recruit & juveniles), ACER; Dr. Valeria Pizarro (PIMS): OANN; Will Greene (PIMS): Diver with APAL; Dr. Craig Dahlgren (PIMS): APAL