CORAL SPAWNING PREDICTIONS

BAHAMAS 2021

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The Bahamas Coral Innovation Hub

About the Coral Innovation Hub

The Bahamas Coral Innovation Hub (BCIH) is a center for development, implementation, and dissemination of scalable coral restoration techniques to help counteract coral reef decline. The research facility hosts a network of integrative people, such as coral scientists, conservation managers, local stakeholders, students, and educators from around the world.

The hub’s main goal is to innovate restoration techniques and use scientific research to maintain the genetic diversity of coral reefs and rehabilitate degraded reefs at a larger scale.

Located in South Eleuthera in The Bahamas, BCIH is a collaboration between the Perry Institute for Marine Science, Cape Eleuthera Institute, and The Nature Conservancy.

Natalia Hurtado [B.Sc, M.Sc.] is a marine biologist who grew up in Bogotá (Colombia), but home for her has always been tied to the sea. Her love for the sea started as a child in 1995, when she saw the wonders of coral reefs for the first time. Natalia has been involved with coral reef ecology and coral restoration projects for more than 10 years.

Natalia is currently based at the Cape Eleuthera Institute, where she is working on coral reef restoration. She also combines research, education and outreach at The Island School. She compiled the 2021 Coral Spawning Predictions for The Bahamas to help scientists, conservation non-profits, and dive operators rehabilitate threatened coral reefs across the nation.

nataliahurtado@islandschool.org
Spawning Zones
for The Bahamas

ZONE 1
Bimini, Grand Bahama, The Abacos, The Berry Islands, Andros, Nassau & Paradise Island

ZONE 2
Eleuthera & Harbour Island, The Exumas, Ragged Island, Long Island, Musha Cay, Cat Island, Conception Island, Port Nelson

ZONE 3
San Salvador, Acklins & Crooked Islands, Mayaguana, Inagua Islands, Little Inagua Island
### BIMINI, GRAND BAHAMA, THE ABACOS, THE BERRY ISLANDS, ANDROS, NASSAU & PARADISE ISLAND

<table>
<thead>
<tr>
<th>Coral Species - Common name (Scientific name)</th>
<th>Spawning window time, BS: Before sunset; AF: After sunset</th>
<th>DAFM (Days After Full Moon)</th>
<th>Dates &amp; Suggested dive times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grooved brain coral (Diploria labyrinthiformis)</td>
<td>0 - 70 min BS</td>
<td>+2</td>
<td>6-May 18:45 - 20:05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+3</td>
<td>5-Jun 18:45 - 20:05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+4</td>
<td>4-Jul 18:45 - 20:05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+5</td>
<td>3-Aug 18:45 - 20:05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+6</td>
<td>2-Aug 18:45 - 20:05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+7</td>
<td>1-Aug 18:45 - 20:05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+8</td>
<td>31-Jul 18:45 - 20:05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+10</td>
<td>30-Jul 18:45 - 20:05</td>
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<td></td>
<td>+11</td>
<td>29-Jul 18:45 - 20:05</td>
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<td></td>
<td>+12</td>
<td>28-Jul 18:45 - 20:05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+13</td>
<td>27-Jul 18:45 - 20:05</td>
</tr>
<tr>
<td>Great star coral (Montastraea cavernosa)</td>
<td>0 - 35 min AS</td>
<td>27-Jul 19:45 - 20:35</td>
<td>27-Aug 19:45 - 20:35</td>
</tr>
<tr>
<td>Boulder brain coral (Colophyllia natans)</td>
<td>30 - 60 min AS</td>
<td>30-Jul 18:45 - 20:05</td>
<td>30-Aug 18:45 - 20:05</td>
</tr>
<tr>
<td>Elk horn coral (Acropora palmata)</td>
<td>80 - 160 min AS</td>
<td>25-Jul 18:45 - 20:05</td>
<td>25-Aug 18:45 - 20:05</td>
</tr>
<tr>
<td>* Staghorn coral (Acropora cervicornis)</td>
<td>140 - 190 min AS</td>
<td>24-Aug 19:45 - 20:35</td>
<td>24-Aug 19:45 - 20:35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26-Aug 19:45 - 20:35</td>
<td>26-Aug 19:45 - 20:35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>27-Aug 19:45 - 20:35</td>
<td>27-Aug 19:45 - 20:35</td>
</tr>
<tr>
<td>Mountainous star coral (Orbicella faveolata)</td>
<td>190 - 240 min AS</td>
<td>25-Jul 18:45 - 20:05</td>
<td>25-Aug 18:45 - 20:05</td>
</tr>
<tr>
<td>Lobed star coral (Orbicella annularis)</td>
<td>190 - 260 min AS</td>
<td>24-Aug 19:45 - 20:35</td>
<td>24-Aug 19:45 - 20:35</td>
</tr>
</tbody>
</table>

Highlighted dates when spawning is likely & very likely
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<th>Dates &amp; Suggested Dive Times</th>
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<td></td>
</tr>
<tr>
<td>Great star coral</td>
<td>* Montastrea cavernosa *</td>
<td>0 - 35 min AS</td>
<td></td>
</tr>
<tr>
<td>Boulder brain coral</td>
<td>* Colpophyllia natans *</td>
<td>30 - 60 min AS</td>
<td></td>
</tr>
<tr>
<td>Elkhorn coral</td>
<td>* Acropora palmata *</td>
<td>80 - 160 min AS</td>
<td></td>
</tr>
<tr>
<td>Staghorn coral</td>
<td>* Acropora cervicornis *</td>
<td>* Highly unpredictable</td>
<td></td>
</tr>
<tr>
<td>Mountainous star coral</td>
<td>* Orbicella faveolata *</td>
<td>190 - 240 min AS</td>
<td></td>
</tr>
<tr>
<td>Lobed star coral</td>
<td>* Orbicella annularis *</td>
<td>190 - 260 min AS</td>
<td></td>
</tr>
<tr>
<td>Symmetrical brain coral</td>
<td>* Pseudodiplora strigosa *</td>
<td>215 - 260 min AS</td>
<td></td>
</tr>
</tbody>
</table>

Highlighted dates when spawning is likely & very likely
## SAN SALVADOR, ACKLINS & CROOKED ISLANDS, MAYAGUANA, INAGUA ISLANDS, LITTLE INAGUA

### CORAL SPECIES - Common name (Scientific name)
- **Grooved brain coral** *(Diploria labyrinthiformis)*
  - Spawning window time: BS: Before sunset; AF: After sunset
  - 0 - 70 min BS

### Dates & Suggested dive times
- **6-May**
  - 18:10 - 19:30
- **7-May**
  - 18:25 - 19:45
- **8-May**
  - 18:10 - 19:30
- **9-May**
  - 18:25 - 19:45
- **3-Jun**
  - 18:10 - 19:30
- **4-Jun**
  - 18:25 - 19:45
- **5-Jun**
  - 18:10 - 19:30
- **6-Jun**
  - 18:25 - 19:45
- **7-Jun**
  - 18:10 - 19:30
- **8-Jun**
  - 18:25 - 19:45
- **5-Jul**
  - 18:20 - 19:40
- **6-Jul**
  - 18:20 - 19:40
- **7-Jul**
  - 18:10 - 19:30
- **8-Jul**
  - 18:25 - 19:45
- **2-Aug**
  - 18:20 - 19:40
- **3-Aug**
  - 18:20 - 19:40
- **4-Aug**
  - 18:10 - 19:30
- **5-Aug**
  - 18:25 - 19:45
- **1-Sep**
  - 17:55 - 19:15
- **2-Sep**
  - 17:55 - 19:15
- **3-Sep**
  - 17:55 - 19:15
- **4-Sep**
  - 17:55 - 19:15
- **2-Oct**
  - 17:55 - 19:15
- **3-Oct**
  - 17:55 - 19:15

### Boulder brain coral
- **Scientific name**: *Colophyllia natans*
- **Spawning window time**: 30 - 60 min AS
- **Dates & Suggested dive times**: 28-Jul, 29-Jul, 30-Jul, 31-Jul
  - 19:50 - 20:40
  - 19:25 - 20:15
- **25-Sep, 26-Sep, 27-Sep, 28-Sep**
  - 18:55 - 19:45

### Elkhorn coral
- **Scientific name**: *Acropora palmata*
- **Spawning window time**: 80 - 160 min AS
- **Dates & Suggested dive times**: 25-Jul, 26-Jul, 27-Jul, 28-Jul
  - 21:00 - 22:20
- **24-Aug, 25-Aug, 26-Aug, 27-Aug**
  - 20:35 - 21:55
- **29-Jul, 30-Jul, 31-Jul**
  - ?? ?? ?? ??
- **22:00 - 22:50**

### Staghorn coral
- **Scientific name**: *Acropora cervicornis*
- **Spawning window time**: 140 - 190 min AS
- **Dates & Suggested dive times**: 28-Aug, 29-Aug, 30-Aug
  - 21:35 - 22:25

### Mountainous star coral
- **Scientific name**: *Orbicella faveolata*
- **Spawning window time**: 190 - 240 min AS
- **Dates & Suggested dive times**: 27-Aug, 28-Aug, 29-Aug, 30-Aug
  - ?? ?? ?? ??
  - 22:25 - 23:35
- **25-Sep, 26-Sep, 27-Sep, 28-Sep**
  - 21:55 - 23:05

### Lobed star coral
- **Scientific name**: *Orbicella annularis*
- **Spawning window time**: 190 - 260 min AS

### Symmetrical brain coral
- **Scientific name**: *Pseudodiploria strigosa*
- **Spawning window time**: 215 - 260 min AS

**Highlighted dates when spawning is likely & very likely**

*Staghorn coral and Mountainous star coral spawning windows are highly unpredictable and require more observations.*
Most of the species listed are hermaphroditic broadcast spawners, meaning their polyps release both egg and sperm contained in gamete bundles. M. cavernosa is the only gonochoric species listed, meaning colonies release either egg 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, fireworms, etc. releasing gametes, please note any spawning observations.
THANK YOU!