

**DRAFT WCPFC GUIDELINES FOR NON-ENTANGLING AND BIODEGRADABLE FAD MATERIALS\***

FAD Structure	NON-ENTANGLING	BIODEGRADABLE
<b>General:</b>	<ul style="list-style-type: none"> <li>✓ Non-entangling biodegradable FADs are the FAD design with the least possible impact on the ecosystem.</li> <li>✓ New FAD designs should also focus on to mitigating impact when beaching or sinking.</li> <li>✓ FAD recovery activities are encouraged to reduce FAD loss and abandonment.</li> </ul>	
<b>Raft</b>	<ul style="list-style-type: none"> <li>✓ To the extent of possible, the surface structure should not be covered with netting or meshed materials (to reduce entanglement of turtles).</li> </ul> <div align="center" data-bbox="617 581 877 841"> </div>	<ul style="list-style-type: none"> <li>✓ To the extent of possible, construct with bamboo, balsa wood, other natural materials or in their absence, use of bio-based and biodegradable compounds complying with international standards that degrade without causing impact on the ecosystem.</li> </ul> <div align="center" data-bbox="1268 651 1835 789"> </div> <ul style="list-style-type: none"> <li>✓ Use of plastic buoys <del>[and containers]</del> for flotation should be reduced as much as possible; for instance, reduce the weight and volume of the FAD structure.</li> </ul> <div align="center" data-bbox="1423 987 1671 1214"> </div>

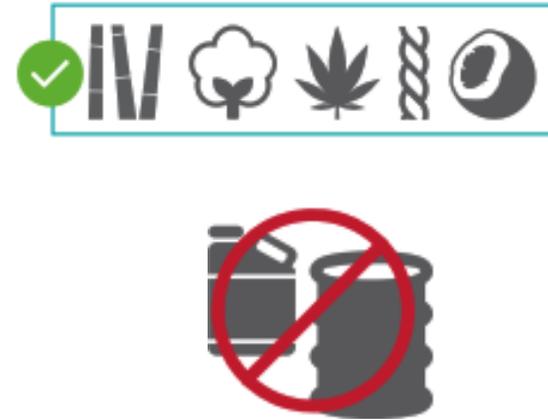
\* Draft guidelines for non-entangling and biodegradable FADs prepared by the FAD Management Options WG, and as reflected in Attachment 1 to **FADMO-IWG-04-2020/WP-02**

## Tail

- ✓ FADs constructed without netting can eliminate the entanglement of turtles, sharks and finfish species. This will also reduce chances of FAD structures becoming enmeshed in coral reefs and other sensitive substrates, and research on the impacts of tail depth, width and size on substrates may be considered in the future.



- ✓ Encourage to use natural and/or biodegradable materials such as cotton ropes and canvas, manila hemp, sisal, coconut fiber, other natural materials. In the absence of such materials, encourage to use bio-based and biodegradable compounds complying with international standards.



Based on the 2019 ISSF Guide there are **three (3) categories of FADs from lowest to highest entanglement risk** that are described below. *Considering the variety of designs and materials used worldwide to construct FADs, these designs are just examples, but the important elements are the net type and its configuration.*



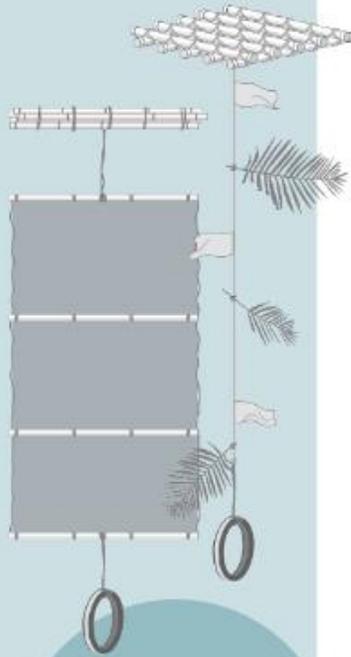
## NON-Entangling FADs

### RAFT

- Do not cover with netting.
- If covered, cover with canvas, tarpaulin, shade cloth, or non-entangling materials.

### TAIL

- Subsurface structure is made with ropes, canvas or nylon sheets, or other non-entangling materials.



More detail on the previous page.

No netting is used in any components (raft and tail)

These FADs are expected to have no risk of causing entanglement.



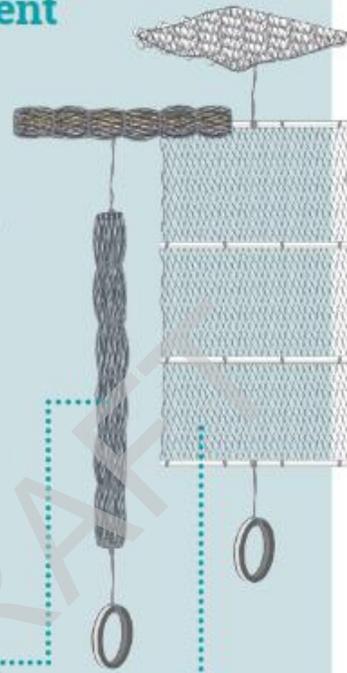
## LOWER Entanglement Risk FADs

### RAFT

- Use only small mesh netting (< 2.5 inch / 7 cm stretched mesh) if covering with net (both upper and submerged parts).
- If small mesh netting is used as cover, it is tightly wrapped, with no loose netting hanging from the raft.

### TAIL

- If net is used as submerged tail, could be of any mesh size if tightly tied into sausage-like bundles.
- If open panel netting is used, only small mesh size (< 2.5 inch [7 cm] stretched mesh) can be used, but weight the panel to keep it taut.



Despite using netting, these design elements reduce the risk of entanglement events.



## HIGH Entanglement Risk FADs

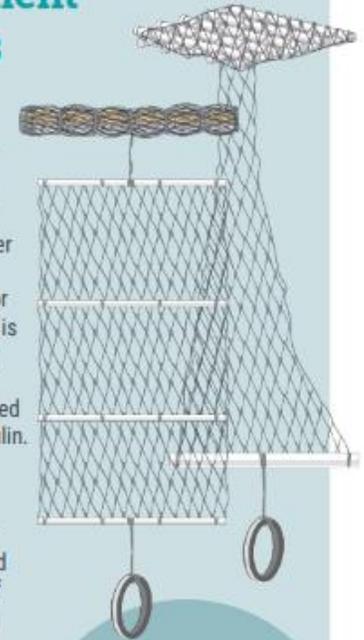
### RAFT

- Covered with large mesh netting (e.g. > 2.5-inch mesh).\*
- If mesh size is larger than 2.5 inches (both in the upper or submerged part), it is high entanglement, whether the net is tightly tied or covered by canvas or tarpaulin.

### TAIL

- Submerged part of the FAD constructed with open panels of large mesh netting (> 2.5-inch mesh).

\*Accounting for mesh sizes available in the market, 2.5 inch (7 cm) mesh size offers the lowest likelihood of entanglements across species and body parts.



These FADs are known to cause entanglements with turtles and sharks.

\* Non-Entangling FADs are highly encouraged