

Pelagic *Sargassum* Algae distribution and movement in the Gulf of Mexico



BOEM Information Need:

BOEM needs to characterize the occurrence and movement of pelagic *Sargassum* algae in the GOM and western Atlantic to support assessment of oil spill risks and mitigation of potential impacts to this vulnerable habitat.

Date Information is Required:

Projected 3 year project will provide information for NEPA analyses for the next 5-year leasing program in the GOM (2017-2022).

Tentative Ranking: 8



Background:

- Sargassum is an important habitat for many species
- Work by Gower and King (2008) in the GOM, documents the northwestern GOM as the origin of *sargassum* in the GOM and western Atlantic
- This study will provide additional information to complement ongoing sea turtle work (GM10-04) as well as other studies addressing fish habitats and currents in the GOM
- Data from NRDA *sargassum* studies will also complement this effort

Study Objective:

This study will characterize the occurrence and movement of pelagic *Sargassum* algae in the GOM and western Atlantic.



Study's Methods:

- 1) Use satellite imagery to identify the seasonal distribution/movement of *Sargassum* in the GOM
- 2) Use aerial/shipboard surveys to confirm satellite data
- 3) Use of drifter buoys to confirm movements/currents
- 4) Integrate oceanographic factors (currents, SST, nutrient levels, storm events) into *Sargassum* data
- 5) Using these data, estimate standing biomass of *Sargassum* in the GOM