

Lunch seminar 4 March 2019:

Internal waves as nutrient pump in the ocean

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Summary:

1. The most recent international news regarding internal waves, their coupling to production of bio mass in the ocean, former president Obama's interest of the phenomenon, and his establishment of a series of new National Monuments in the ocean - where life and diversity can grow and an ocean in peril can recover, is discussed.

2. Norwegian conditions: concrete starting point in the coral reef and shallow banks west of Vesterålen, and similar conditions around the Svalbard archipelago. Observation of trains of 500 m long, tidally driven, internal waves of amplitude 60-100 m. These waves break, through three different mechanisms, throughout the entire water column, increasing the turbulence. Particles in the light zone are mixed downward: Particles at the bottom is mixed upward. The waves transport mass / particles vertically and horizontally. The mechanism is like a pump, driven by the tide, in harmony with the seasonal hydrography.