**Description in words**

The biophysical model used in this study uses a Larval TRANSport Lagrangian model (LTRANS v.2b; (North et al. 2011)) on the Regional Ocean Modeling System (ROMS) (Song and Haidvogel 1994) to predict larval movement in the Canadian Pacific Coast. The ROMS had a ~3 km horizontal resolution and 30 sigma layers in the vertical. Larvae were released by dividing the coast into a 20 x 20km grid and releasing 400 passive particles randomly somewhere in the grid. Larvae were released from the benthos every day during June and July for the years 1998 – 2007 and 2068 – 2077 (future projection). Larval positions were recorded daily for 120 days, allowing me to compare dispersal patterns for a large range of PLDs.

**Model fast facts**

**Ocean circulation model:** A larval transport (LTRANS) model applied on the Regional Ocean Modeling System (ROMS).

**How many particles released:** 400 particles released randomly within every 20 x 20 km2 grid cell. In total, 13 371 200 particles (see shapefile).

**Timing of particle release:** Released daily from June 1 – July 31from 1998 – 2007 (10 years) and 2068 - 2077. Particles tracked for 120 days.

**Location of particle release/Spatial extent:** Covers most of Northern Shelf, Straight of Georgia, and Southern Shelf bioregions. Also extends a bit north and south of these areas (see shapefile) but for my thesis I am only using particles within BC. Particles released at the benthos.

**Spatial resolution:** 3x3km2 horizontal resolution (unique vector every 3x3km2). 13 vertical layers with distinct processes from surface to 250m depth.

**Temporal resolution:** Larval lat/lon position and depth recorded every 3 hours. But the data output I am using only has records daily.

**References:**

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