Effects of winter conditions on Olympia oyster reproduction and larval yield

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Highlights of the Manuscript

- 1. Milder winters may result in more developed *O. lurida* sperm, larger oocytes, and larger larvae, but will not likely impact larval production timing or magnitude, indicating that *O. lurida* reproduction is relatively resilient to shifting winter temperatures.
- 2. In a hatchery setting, *O. lurida* larval size upon release does not predict larval survival, and hatcheries should not presume that smaller *O. lurida* larvae are of poor quality.
- 3. When overwintering *Ostrea lurida* broodstock in the hatchery prior to spring production, chilling seawater to historic winter temperatures is not necessary, nor is feeding broodstock high algal densities, and the amount of time broodstock are held prior to spawning should be minimized.