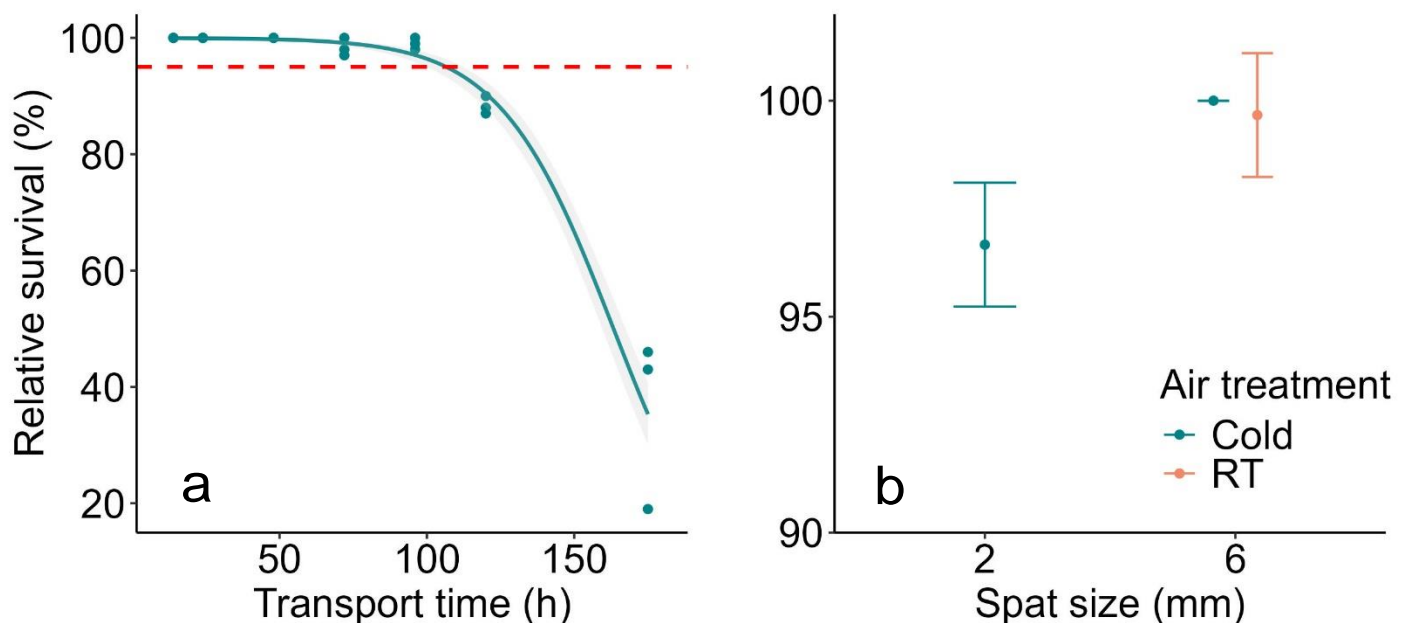


## Transport protocol

- Oyster seed (2 and 6 mm) can be transported successfully using Styrofoam containers in which the seed are packed in a moist environment, e.g. between two wet towels, with ice packs. The seed should not be placed directly on the ice packs.
- In this transport setting, larger seed (6 mm) can be transported up to four days with >95% survival. Larger seeds can also be transported in room temperature for at least 48 h without affecting survival.
- Smaller seed (2 mm) are more sensitive than larger seed and should be transported for <48 h in cold storage to ensure >95% survival.

## Background data

This transport protocol is based on an experiment conducted by IVL Swedish Environmental Institute in collaboration with Ostrea Aquaculture AB. To mimic current oyster seed transport procedures, oyster seed (6 mm) were placed in Styrofoam transport containers in a moist environment (seed placed between moist towels in the containers) with ice packs (approx. 5-15 °C). Seven different transport times were evaluated (14, 24, 48, 72, 96, 120 and 175 h). For the 48 h treatment, 6 mm seed were also exposed to room temperature (approx. 20 °C) and 2 mm seed were treated with cold air to assess the effect of temperature and seed size on survival, respectively. 100 seeds were placed in each replicate of transport time, temperature and seed size (n=3). After treatment, seeds were returned to the hatchery's nursery system and survival was quantified after two weeks. Large seed (6 mm) survived well until 105 h, after which survival declined below 95% (Figure 1a). Small seed (2 mm) were more vulnerable to transport than large seed (Figure 1b). Small seed displayed at least 95% survival after 48 h in cold transport, while large seed displayed 100% survival in cold treatment and close to 100% in the room temperature treatment (Figure 1b).



**Figure 1.** *Ostrea edulis* seed survival in response to (a) transport time using cooling (ice packs, 6 mm seed) and (b) seed size and temperature (room temperature or cold treatment, 48h exposure). (a) shows observed (points) and model predicted (line) relative to seed survival with transport time. Predictions are based on a logistic regression model. Grey shadings represent 95% confidence intervals of the model. The red line shows 95% seed survival. Note that the y and x axes do not start at zero. (b) shows relative survival of seed (2 and 6 mm) exposed to 48 h cold or room temperature (RT). Error bars represent 95% confidence intervals (n=3). Note that the y-axis starts at 90% survival.