

## SEA LICE (*LEPEOPHTHEIRUS SALMONIS*)

Sea lice larvae and motile development stages are cultivated by VESO under laboratory conditions. Sea lice are usually produced from eggstrings that have been obtained from fish farms. Larvae are hatched in specially designed units.

### Challenge models

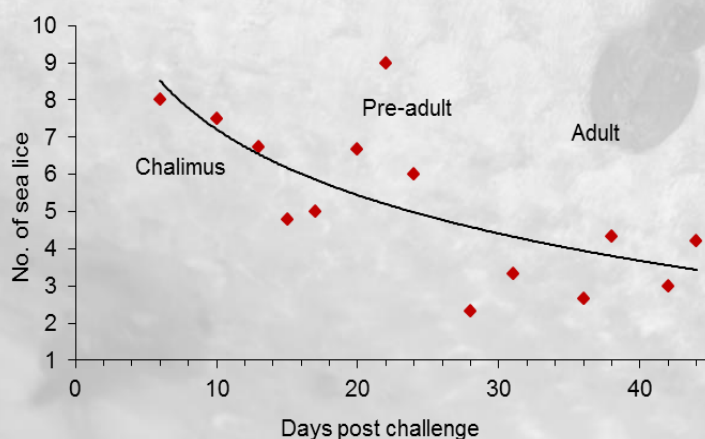
Sea lice challenge trials can be conducted to evaluate the efficacy of new generation anti parasitological drugs, vaccination, feeding or selective breeding for resistance against sea lice attachment. Challenges are typically performed using copepods.

### Effect of *in vivo* treatment

VESO has developed several challenge models for testing and screening of chemotherapeutics. Trials are performed at all developmental stages (copepodid – adult) on seawater adapted post-smolts. VESO also evaluates the hatching ability of eggstrings after exposure to test substances.

### Bioassay

Bioassays are designed to measure the sensitivity of a sea lice population to the chosen chemotherapeutics. Bioassays may be performed on planktonic larval stages or motile (pre-adult and adult) developmental stages. The sensitivity of test compounds will show a degree of variation depending on e.g. developmental stage and gender, and therefore bioassays need to be individually designed according to each substance on test.



Tendency of developmental drift in a laboratory sea lice population.