

Composición de la estructura poblacional de los ejemplares adultos de *Caligus rogercresseyi* posterior a tratamientos antiparasitarios

S. Bravo^{1*}, M. T. Silva², C. Agusti³ y N. Ponce¹

¹ Universidad Austral de Chile, Puerto Montt, Chile

² Universidad San Sebastián, Puerto Montt, Chile

³ Norwegian University of Life Sciences, Ås, Noruega

*sandra.bravo.sbs@gmail.com

- Agusti, C., Bravo, S., Contreras, G., Bakke, M. J., Helgesen, K.O., Winkler, C., y col. 2016. Sensitivity assessment of *Caligus rogercresseyi* to anti-lice chemicals in relation to treatment efficacy in Chilean salmonid farms. *Aquaculture*. 458:195-205. <https://doi.org/10.1016/j.aquaculture.2016.03.006>.
- Bravo S., Treasurer J. 2023. The management of the sea lice in Chile: A review. *Reviews in Aquaculture*. 2023,1-16. <https://doi.org/10.1111/raq.12815>
- Bravo S., 2010. The reproductive output of sea lice *Caligus rogercresseyi* under controlled conditions. *Experimental Parasitology*. 125: 51–54. <https://doi.org/10.1016/j.exppara.2009.12.001>
- Bravo S., Erranz F., Lagos C. 2009. A comparison of sea lice (*Caligus rogercresseyi*) fecundity in four areas in southern of Chile. *Journal of Fish Diseases*. 32:107-113.
- Bravo, S., Sevatdal, S., Horsberg, T., 2010. Sensitivity assessment in the progeny of *Caligus rogercresseyi* to emamectin benzoate. *Bulletin of the European Association of Fish Pathologists*. 30, 92-98.
- Eisenhauer, L., Solvang, T., Alver, M., Krause, D. F., Hagemann, A., 2020. Dispersal of salmon lice (*Lepeophtheirus salmonis* Kroyer, 1837) egg strings from open-cage salmon farming: A neglected source for infestation dynamics. *Aquaculture Research*. 51(11), 4595-4601. <https://doi.org/10.1111/are.14805>
- González M. P., Marín, S. L., Vargas-Chacoff L., 2015. Effects of *Caligus rogercresseyi* (Boxshall and Bravo, 2000) infestation on physiological response of host *Salmo salar* (Linnaeus 1758): Establishing physiological thresholds. *Aquaculture*. 438: 47–54. <https://doi.org/10.1016/j.aquaculture.2014.12.039>
- Hamre L., Bui S., Oppedal F., Skern-Mauritzen R., Dalvin S. 2019. Development of the salmon louse *Lepeophtheirus salmonis* parasitic stages in temperatures ranging from 3 to 24 °C. *Aquac. Environ. Interact*. 11: 429–443. <https://doi.org/10.3354/aei00320>
- Helgesen K.O., Bravo S., Sevatdal S., Mendoza J., Horsberg T.E. 2014. Deltamethrin resistance in the sea louse *Caligus rogercresseyi* (Boxshall and Bravo) in Chile: bioassay results and usage data for antiparasitic agents with references to Norwegian conditions. *Journal of Fish Diseases*. 37: 877–890. <https://doi.org/10.1111/jfd.12223>
- Jeong J., McEwan G.F., Arriagada G., Gallardo-Escárate C., Revie C.W. 2022. Quantifying key parameters related to the life cycle of *Caligus rogercresseyi*. *Journal of Fish Diseases*. 45: 219–224. <https://doi.org/10.1111/jfd.13535>
- Marín S.L., Ibarra R., Medina M.H., Jansen P.A. 2015. Sensitivity of *Caligus rogercresseyi* (Boxshall and Bravo 2000) to pyrethroids and azamethiphos measured using bioassay tests—a large scale spatial study. *Preventive Veterinary Medicine*. 122: 33–41.
- May R. M., Woolhouse M. E. 1993. Biased sex ratios and parasite mating probabilities. *Parasitology*. 107: 287–295.
- Piasecki W., MacKinnon B.M. 1995. Life cycle of a sea louse *Caligus elongatus* von Nordmann, 1832 (Copepoda, Siphonostomatoida, Caligidae). *Canadian Journal of Zoology*. 73: 74–82
- Roth, M., Richards, R.H., Dobson, D.P., Rae, G.H., 1996. Field trials on the efficacy of the organophosphorus compound azamethiphos for the control of sea lice (Copepoda: Caligidae) infestations of farmed Atlantic salmon (*Salmo salar*). *Aquaculture*. 140, 217–239.
- SERNAPESCA. 2022. Specific Sanitary Program for the Surveillance and Control of Caligidosis - SSPSC. Res. Ex. 60-2022. <http://www.sernapesca.cl/programas/programa-sanitario-especifico-de-vigilancia-y-control-de-Caligidosis>.
- Sevatdal, S., Copley, L., Wallace, C., Jackson, D., Horsberg, T. E. 2005. Monitoring of the sensitivity of sea lice (*Lepeophtheirus salmonis*) to pyrethroids in Norway, Ireland and Scotland using bioassays and probit modelling. *Aquaculture*. 244, 19–27.
- Whyte, S.K., Westcott, J.D., Jimenez, D., Revie, C.W., Hammell, K.L., 2014. Assessment of sea lice (*Lepeophtheirus salmonis*) management in New Brunswick, Canada using deltamethrin (AlphaMax®) through clinical field treatment and laboratory bioassay responses. *Aquaculture*. 422–423, 54–62.
- Wootton, R., Smith, J.W. & Needham, E.A. 1982. Aspects of the biology of the parasitic copepods *Lepeophtheirus salmonis* and *Caligus elongatus* on farmed salmonids, and their treatment. *Proc. R. Soc. Edinb. Sect., B*. 8: 185-197.