Sea-louse parasites on juvenile wild salmon in the Broughton Archipelago, British Columbia, Canada

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Abstract. The global expansion of aquaculture has changed the structure of fish populations in coastal environments, with implications for disease dynamics. In Pacific Canada, farmed salmon act as reservoir hosts for parasites and pathogens, including sea lice (Lepeophtheirus salmonis and Caligus clemensi) that can transmit to migrating wild salmon. Assessing the impact of salmon farms on wild salmon requires regular monitoring of sea-louse infections on both farmed and wild fish. Since 2001, we have collected juvenile pink (Oncorhynchus gorbuscha) and chum (O. keta) salmon annually at three sites in the Broughton Archipelago in British Columbia, Canada, during the annual juvenile salmon migration from fresh water to the open ocean. From sampled fish, we recorded counts of parasitic copepodid-, chalimus-, and motile-stage sea lice. We report louse abundances as well as supplementary observations of fish size, development, and health.

Key words: aquaculture; conservation; parasite; salmon; sea lice.

The complete data sets corresponding to abstracts published in the Data Papers section in the journal are published electronically as Supporting Information in the online version of this article at http://onlinelibrary.wiley.com/doi/10.1002/ecy.1438/suppinfo.