

Evaluation of the performance of light traps for sampling fish larvae in inshore temperate waters

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ABSTRACT: We compared 2 methods of collecting fish larvae in inshore temperate waters near the Kaikoura Peninsula, New Zealand: night collection with light traps and with a plankton net. The sampling design incorporated seasons (summer and autumn), moon phases (full and new) and habitats (reef and beach). The 2 methods were simultaneously deployed over 2 nights in replicates of 3 within each factor. The resulting 96 samples captured 8086 larvae from 14 families. The plankton net captured twice as many taxa from twice as many families as the light traps. No taxa were caught exclusively by the light traps. For all taxa, the fish larvae collected by the light traps were larger than those in the plankton net samples. Most taxa were more abundant in the summer and new moon samples taken by both methods. The 2 methods indicated different abundance patterns between habitats for most taxa. The light traps collected more of most taxa in the reef habitat, while the plankton net collected more in the beach habitat. The light trap samples complemented those taken by the plankton net. Both sampling methods could be combined in a sampling procedure to provide a more comprehensive picture of inshore ichthyoplankton assemblages.

KEY WORDS: [Fish larvae](#) · [Light traps](#) · [Rocky reef](#) · [Sampling methods](#) · [New Zealand](#)

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