ANAESTHETIC PROTOCOLS FOR LUMPFISH (CYCLOPTERUS LUMPUS L.)

Malene Waage Skår¹, Gyri T. Haugland¹, Heidrun I. Wergeland¹ and Ole S. Samuelsen^{§, 1,2}

¹ Department of Biology, University of Bergen, Norway

²Institute of Marine research, Bergen, Norway

ABSTRACT

Lumpfish and different species of wrasse have shown to efficiently eat sea lice. Due to the high demand for cleaner fish, lumpfish is now farmed in Europe. In Norway, there has been a rapid increase in production sites the last three years and the number of produced lumpfish has increased from 0.4 million in 2012 to 10 million (estimate) in 2015. There are several situations during the production cycle in which anaesthesia is required or preferred, such as egg stripping, blood sampling and vaccination. At present, some companies use anaesthetic during vaccination of lumpfish, although no systematic testing of effect and safety has been performed. It has to be valuated if anestethetic is beneficial or needed for vaccination of lumpfish. We have developed anaesthetic protocols for three drugs and determined the optimal dose and therapeutic window for each of them. We have also examined the effect of fish size and temperature. This will ensure optimal and safe treatment according to an ethical standard for good fish welfare.

KEYWORDS

Lumpfish, cleaner fish, anaesthesia

§Corresponding author. Tel.: +47 97076918

E-mail address: oles@imr.no