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Development of an Analytical Method for the Determination of Storage Lipids in *Calanus finmarchicus*

Abdullahi Ahmed Yusuf^{1,2,3}, Lynda Webster¹ and Patricia Pollard²

¹Fisheries Research Services (FRS), Marine Laboratory, Torry Aberdeen, UK

²Robert Gordon University, Aberdeen, UK

³Department of Biological Sciences, Ahmadu Bello University, Zaria, Nigeria

A method was developed for the determination of the major storage lipids, wax ester and triglycerides, in the copepod *Calanus finmarchicus*. A variation of the Folch method was used to extract the lipid. The method was scaled down to enable the extraction of either pooled (~1 mg) or individual (~200 µg) copepods. The major lipid classes were identified using TLC and quantified using HPLC coupled with evaporative light scattering detection. Analysis of laboratory reference materials indicated that this method underestimated the minor triglyceride component, but gave a good estimate of the major wax ester component. The fatty acid and fatty alcohol composition of the *C. finmarchicus* were determined following transesterification of the lipid extract in methanol. Fatty acids and fatty alcohols were initially identified by comparison with authentic standard and by mass spectroscopy. Using GC with flame ionisation detection the normalised area percentage of the fatty alcohols and fatty acid methyl esters was determined simultaneously in one run for either pooled or individual copepod samples. These methods were applied to *C. finmarchicus* collected from the Irminger Sea, North Atlantic in 2001 and 2002.