

## Storage stability of fish oil from Langkawi Island, Malaysia

### ABSTRACT

Fish oils extracted from 6 species of marine fin fish caught from Pulau Tuba area, near Langkawi Island, a famous tourism destination in Malaysia, were evaluated for their oxidative stability during storage at both  $-27$  and  $4^{\circ}\text{C}$ . The five fish species were “kerisi” (threadfin breams, *Scomberomorus commersoni*), “kerapu” (groupers, *Cynoglossus lingua*), “kembong” (Indian mackerel, *Psettodes crumei*), “gelama kling” (drum-croaker-jewfish, *Pristipomodes typus*), and “tinggiri batang” (Spanish mackerels, *Scolidon sorrakowah*). Results showed that stability of oils stored at  $-27^{\circ}\text{C}$  was better than that of oils stored at  $4^{\circ}\text{C}$ . Iodine value (IV) of oils decreased during storage, while other parameters, namely peroxide value (PV), anisidine value (AnV), acid value (AV) and thiobarbituric acid (TBA) value increased. However, the rate of quality deterioration of oil samples was relatively low, as shown by very little changes in fatty acid profiles of the oil, meaning that both storage temperatures might be used for storage purposes of fish oil.

**Keyword:** Fish oil; Marine source; Storage stability; Malaysia.