D-50: Influence of shark species on fin yield and composition in acetic acid extraction procedures

C V I Jayasinghe[1], R Samaradivakara[1], S P Jayasooriya[1], W M K Perera[1,2]
([1]*Institute of Post Harvest Technology, National Aquatic Resources Resesarch and Development Agency, Colombo 15,* [2]*Dept. of Nutrition and Community Resources Management, Wayamba Campus, University of Rajarata, Kuliyapitiya*)

The aim of the present study was to introduce a method for processing shark fins and to assess the yield and the composition of fins in relation to different shark species. A complete set of fins of six shark species namely silky (*Carcharinus falciformis)* hammerhead *(Sphyrina lewini),* spot tail *(C. sorrah),* blue (*Prionace glauca*), blacktip *(C. limbatus),* oceanic whitetip *(C. longimanus*) and thresher *(Alopas pelagicus)* were processed using 3% acetic acid followed by 5% hydrogen peroxide and the total yield by weight assessed. Dry matter, protein, ash, non-protein nitrogen and calorie value of processed fins of the above shark species were determined.

Significantly ($p<0.05$) highest processed fin yield (19.7%) was recorded by blacktip shark followed by hammerhead (17.6%) and spot tail shark (17.5%). Silky, oceanic whitetip and blue shark gave 14%, 13.5% and 12.7% fin yields respectively while thresher shark gave significantly ($p<0.05$) lowest yield (2%). Dry matter content of fins of all shark species varied between 86-89%. Blue shark fins recorded the lowest ash content (0.16%). The highest protein content (90.6%) was recorded in spot tail shark. The value was not significantly different ($p<0.05$) with hammerhead (89.8%) and thresher (90.2%) shark. Oceanic whitetip and blue shark recorded 80.5% and 79.5% respectively. The lowest value was recorded in silky shark (74.3%). The non-protein nitrogen of fins of six shark species varied between 0.13% (thresher shark) - 0.52% (oceanic whitetip). Thresher species recorded the highest calorific value 5525 cal/g while the hammerhead recorded the lowest (4863cal/g) and oceanic whitetip, blue, spot tail and silky were intermediate.

Present study demonstrated the highest yield of processed fins recorded by blacktip shark when the 3% acetic acid processing was used. However certain aspects are higher in the thresher shark fins