

DEVELOPMENT OF QUALITY INDEX FOR WILD COBIA *Rachycentron canadum*

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Freshness makes a major contribution to the seafood quality, which is a very perishable product. The principal method to evaluate the seafood freshness is sensory evaluation. The Quality Index Method (QIM) is a scoring system for freshness and quality estimation of fisheries products, based on well-defined characteristic of appearance, odour and texture attributes changing through storage time. A score from 0 to 2 or 3 demerit points is given for each quality parameter according to the preliminary descriptions. Thus, the scores are summarized to given an overall sensory score, the Quality Index (QI). The aim of this study was to develop a QIM scheme for fresh cobia.

Five samples of wild cobia were used in this study. The cobia was caught with long line, stored whole in ice after catch and analyzed after 2 up to 3 days. At the laboratory, the fishes were stored at 0-1°C on freezer in plastic bags. Samples stored for 0 to 12 days were analyzed with QIM. Five persons observed and registered the changes occurring in the fishes from the day 0 until spoiled. Changes in the following parameters were listed in a preliminary scheme (Table 1). The maximum sum of the points was 24. After the development of the scheme, the total sum of points was 21, describing 11 sensory attributes for appearance of skin, eyes, abdomen, gills and texture.

It was assumed in the QIM that the scores for all attributes increased with storage time, but to a different extend for different quality attributes. The maximum storage time for wild cobia determined with Quality Index evaluation was 10-11 days at 0-1°C.

Acknowledgements: to the CNPq and CAPES for the financial support.

Table 1 – Quality Index Method scheme developed for wild cobia *R. canadum*.

Quality parameters		Description / Points
Skin	Colour/appearance	Iridescent pigmentation, shining 0 ()
		Rather dull 1 ()
		Dull 2 ()
	Elasticity	Firm 0 ()
		Rather soft 1 ()
		Very soft 2 ()
	Texture	In rigor 0 ()
		Finger mark disappears immediately 1 ()
		Finger leaves mark over 3 seconds 2 ()
Eyes	Cornea	Translucent 0 ()
		Slightly opalescent 1 ()
		Opaque 2 ()
	Pupils	Black 0 ()
		Slightly opaque 1 ()
	Form	Grey 2 ()
		Convex 0 ()
Gills	Colour	Flat, plane 1 ()
		Sunken, concave 2 ()
		Red/dark 0 ()
		Pale red 1 ()
	Odour	Grey-brown 2 ()
		Fresh, seaweed 0 ()
		Metal 1 ()
		Sour 2 ()
	Form	Rotten 3 ()
		Complete 0 ()
Blood in abdomen (kidney)	Colour	Slightly disforme 1 ()
		Disforme 2 ()
		Dark red 0 ()
		Dull red 1 ()
Abdomen	Colour/appearance	Brown 2 ()
		Black 3 ()
		Transparent, bluish 0 ()
		Opaque 1 ()
		Darkness 2 ()