

## 外部発表業績

### 海洋と生物

脂肪酸組成を用いたカキの産地判別技術の開発

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Imported products should display the name of the country of origin (country of export), and the name of the water area should also be written. However, in 2002 the suspicion arose that oyster distributors were selling cheap, imported oysters labeled as 'Miyagi oysters', and it became a big problem for society. From this arose the need for technology that could distinguish between oysters cultivated in Miyagi and South Korea. This the Miyagi Prefecture Fisheries Research and Development Center began developing in 2002.

We focused on the fatty acid content as reflective of the oyster's growth environment, and using gas-liquid chromatography we analyzed oyster specimens from Miyagi and South Korea. As a result, the 20 kinds of fatty acid were detected and we discovered considerable differences between Miyagi and South Korean oysters in their fatty acid composition ratio. Miyagi oysters often showed particularly high quantities of linoleic acid (C18:2) and linolenic acid (C18:3) during the tests. The influence by the age of oysters and the breeding depth was not admitted. And the change by the difference of the preservation condition was small. Analyzing the fatty acid composition of specimens individually, differences are smaller than that taken from other inhabits. So we know that the fatty acid compositions of oyster cultivated same area are comparatively stable. By combining and comparing the value of numerous fatty acid components of Miyagi oysters to those South Korean, their differences are made clearer. Fatty lipid analysis is a swift and easy method for discerning an oyster's production area, and is suitable for practical use.

### 日本水産学会誌

「話題」 気仙沼湾の養殖漁場環境の変遷

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気仙沼湾では長年に亘って水質・底質調査、赤潮・貧酸素発生状況調査等の漁場環境調査が行われてきた。これらの調査結果から、水質・底質は改善傾向にあり、赤潮・貧酸素発生数も減少していることが明らかとなった。これらの環境改善には、下水処理施設の設置や底泥の浚渫等が大きく寄与していると考えられる。今後はカキ・ホタテガイの餌となる植物プランクトンやワカメ・コンブの成長に必要な栄養塩類の動態を明らかにするためのモニタリングが必要となる。

