FUNGI ASSOCIATED WITH MARKET DRY FISH IN KANDY

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Fungi isolated from 25 samples of market dry-fish belonging to 14 species, by plating in Potato Dextrose Agar, Czapex Dox Agar, Sabouraud Dextrose Agar and MY 5-12[1] media were identified. Of the 61 isolates of fungi identified, Aspergillus niger and Basipetospora halophila were isolated from 18 and 9 samples respectively. Aspergillus flavus, Aspergillus fumigatus, Aspergillus glaucus, Aspergillus restrictus, Aureobasidium spp., Cladosporum herbarium, Gleomastrix spp., Penicillium chalybeum and Penicillium expansum were isolated from less than 9 samples. The mean moisture and salt percentages of the dry-fish were 31.5 + 9.8 and 19.1 + 6.8 respectively. When the fungal isolates were incubated in Sabouraud Dextrose Agar containing (5-30)% sodium chloride, none of them grew at 30% salt; Aureobasidium spp. and Gleomastrix spp. grew only in the absence of salt; Basipetospora halophila grew only in the presence of salt between (5-20)% indicating it to be a genuinely halophillic fungus. When the fungi were incubated with 6 species of sterile dry-fish they grew well except on prawn. No relationship was observed between the fungal species, type of dry fish, moisture content or the salt content.

The most dominant fungi in dry-fish appear to be A. niger which is a common fungus in foods and B. halophila which showed visible white colonies in most dry-fish samples including those containing more than 25% salt.

References:

1. Pitt, I.I. and Hocking, A.D. (1985), New species of fungi from Indonesian dry-fish, Mycotaxon, 22: 197-208.