Escolar and oilfish health warning

The food industry and consumers need to be aware of the risks associated with consuming escolar and oilfish. These fish have been found responsible for a number of food poisoning outbreaks involving a type of oily diarrhoea, called keriorrhoea.

**Effects of consumption of escolar and oilfish**

It was previously assumed that the majority of people eating escolar (*Lepidocybium flavobrunneum*) and oilfish (*Ruvettus pretiosus*) do not develop any illness. However, investigation of some Australian outbreaks of oily diarrhoea suggest between 45 and 67 per cent of people may become ill after eating these fish species. There is probably a significant under-reporting of illness associated with the consumption of these fish as the symptoms can be mild and short-lived.

The oily diarrhoea is caused by indigestible oil contained in these fish, which accumulates in the rectum before being expelled. Symptoms range from an oily orange or yellow discharge, to severe diarrhoea with nausea and vomiting. Other symptoms may include stomach cramps, loose bowel movements and headache. The symptoms can occur without warning, usually within 2 ½ hours of consumption, but range from 1 to 90 hours later. Unlike other forms of diarrhoea, the oily diarrhoea caused by these fish does not cause significant loss of body fluid and is not life-threatening. Symptoms may last for one or two days.

There is no way to identify susceptible people. However, people with bowel problems, malabsorption or pregnancy may be at increased risk.

**Misidentification of escolar and oilfish**

Escolar (*Lepidocybium flavobrunneum*) and oilfish (*Ruvettus pretiosus*) are very oily fish. They contain approximately 20 per cent (by weight) of indigestible wax esters with the wax esters contributing more than 90% of the fat content. It is believed this indigestible oil is mainly responsible for the symptoms described above.

In Australia, escolar has been misidentified and mislabelled as rudderfish (identified as *Centrolophus niger* and *Tubbia* species) and butterfish (*Scatophagus* species). These species of fish are suitable to eat because they do not contain the indigestible wax ester oil. Other obsolete names which may not be used to describe escolar include rudder cod, black oil fish, castor oil fish and oil fish. Overseas, escolar has been sold as ‘white tuna’, ‘super white tuna’, ‘Hawaiian butter fish’, ‘walu’, ‘codfish’, ‘orange roughy’ and ‘sea bass’.

Information on approved Australian standard fish names is available for free on the Seafood Services Australia website [www.seafood.net.au/fishnames](http://www.seafood.net.au/fishnames). This includes the Australian Fish Names Standard and a database that can be searched online that includes photographs and obsolete fish names. The Fishbase website [www.fishbase.org](http://www.fishbase.org) is also a useful free reference source for helping to identifying these fish species. It includes photographs of both fish and fillets of fish.
In Queensland there is a range of offences under the Food Act 2006 in relation to the sale of food that is unsuitable or falsely described. Other offences include misleading and deceptive conduct in relation to the advertising, packaging or labelling of food. Businesses also have a duty of care to ensure they do not cause harm.

Precautions and safe preparation

Based on the information available, a significant proportion of people will become ill after eating the flesh of escolar (*Lepidocybium flavobrunneum*) and oilfish (*Ruvettus pretiosus*). As such, consumption of these species is best avoided.

Since escolar and oilfish are often misdescribed, it is recommended that food businesses take the following precautions, particularly when dealing with fish described as rudderfish and butterfish.

- importers should request suppliers to provide written evidence that indicates the scientific names of the fish species
- wholesalers and distributors should check with their suppliers for species identification using the scientific names of the fish. They should then inform buyers of the correct scientific names, and place the correct scientific and common names on food labels
- retailers and caterers should check and verify the fish species with their suppliers and use the proper standard fish names (common names), referenced in the *Australian Fish Names Standard*, on food labels, signs and menus

If escolar or oilfish are sold to the public, it is recommended retailers and caterers should provide information to consumers about the potential risk associated with their consumption. The following warning statement has been adopted by the fish trade in other countries and may be used as a guide.

> **Escolar and oilfish can cause digestive discomfort to some individuals. If you are pregnant, have a bowel problem or malabsorption, you are advised not to consume this fish.**

> If you are eating this fish for the first time, consume only a small portion. If you experience gastrointestinal symptoms after eating this fish, do not consume this fish in future. Seek medical advice if symptoms persist.

There is currently little scientific information available on ways to prepare escolar and oilfish that make it safer to consume. Precautions that have been suggested include:

- limiting any one meal to less than 200 grams
- preparation and cooking methods that separate most of the fat from the fish, such as grilling
- discarding the cooking liquid and not using it in sauces or to make other dishes

It is uncertain whether removal of the skin and superficial flesh of these fish (‘deep skinning’) will remove the indigestible wax ester oil from the fish and make the fish suitable to eat.

What to do if people become sick

Food poisoning can be particularly serious. It is recommended that early medical attention be sought with young children, the elderly, pregnant women or people of all ages who are in poor health.

Suspected food poisoning outbreaks should be reported to your local Queensland Health Public Health Unit (contact details are below).
Acknowledgements

This fact sheet is mainly based on:


For further information

Queensland Health has a variety of fact sheets with detailed information on food safety. Fact sheets can be accessed from the Queensland Health website at [www.health.qld.gov.au/foodsafety](http://www.health.qld.gov.au/foodsafety).

Contact your local Queensland Health Public Health Unit (PHU) if you have any further questions (PHU contact details below).

**Queensland Health Public Health Units**

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<tr>
<th>Public Health Unit</th>
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<tr>
<td>Brisbane Northside</td>
<td>3624 1111</td>
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<tr>
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<td>3000 9148</td>
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<td>Toowoomba/ Darling Downs</td>
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