***Sparus aurata*** **System:** Marine_freshwater_brackish

| Kingdom | Phylum | Class | Order | Family |
|---|---|---|---|---|
| Animalia | Chordata | Actinopterygii | Perciformes | Sparidae |

**Common name**

snapper (English, New Zealand), gilthead (English), gilt head (English), gilt head bream (English), gilthead bream (English), gilt-head seabream (English), goudbrasem (Dutch), kultaotsa-ahven (Finnish), n'tad (Arabic), orada (Catalan), orada (Croatian), silver seabream (English), daurade royale (French, Mauritania), dorade (French), Dorade (German), dorade royale (French), Dorade Royal (German), Gemeine Goldbrasse (German), Goldbrasse (German), goldbrassen (German), Goldkopf (German), daurade (French), tsipoura (Greek), dorada (Spanish), dourada (Portuguese), cipura (Turkish), goud brasem (Dutch), komarca (Croatian), lovrata (Croatian), ovrata (Croatian), podlanica (Croatian), dinigla (Croatian), væbnerfisk (Danish), guldbrasen (Danish)

**Synonym**

*Aurata aurata* , (Linnaeus, 1758)
*Chrysophrys aurata* , (Linnaeus, 1758)
*Chrysophrys aurathus* , (Linnaeus, 1758)
*Chrysophrys auratus* , (Linnaeus, 1758)
*Chrysophrys crassirostris* , Valenciennes, 1830
*Pagrus auratus* , (Linnaeus, 1758)
*Pagrus auratus* , (non Forster, 1801)
*Sparus auratus* , Linnaeus, 1758

**Similar species**

**Summary**

Gilthead bream (*Sparus aurata*) is a fish of Mediterranean and Atlantic Ocean origin. It is one of the most important fish in the aquaculture industry in the Mediterranean. However the rapid development of marine cage culture of this fish has raised concerns about the impact of escaped fish on the genetic diversity of natural populations.

view this species on IUCN Red List

**Species Description**

The gilthead bream is a Mediterranean fish reaching a maximum of 70 cm length and 6 kg in weight (Balart *et al*., 2009). It has 11 dorsal spines, 13-14 dorsal soft rays, 3 anal spines and 11-12 anal soft rays. The body is oblong in shape, with the snout measuring more than twice as long as the eye diameter (FishBase, 2010). The upper and lower jaws have six and four canines in front followed by rows of molariform teeth; it has four upper and eight lower gill rakers (Balart *et al*., 2009). Diagnostic colouration comprises of a large dark patch at the origin of the lateral line, overlapping the upper part of the opercle and underlined by a reddish area; golden curved bar across forehead, bordered by two dark zones; caudal black-edged distally (Balart *et al*., 2009).

**Lifecycle Stages**
Gilthead seabream begin gonadal development during September in preparation for winter spawning which starts around late December to early January in the eastern Mediterranean region. Spawning or gamete release occurs over a 3–4-month period, during which females can spawn 0.5–2 times their body weight in eggs (Zohar *et al*., 1995 in Kissil *et al*., 2001) through multiple spawnings. Reproduction by seabream causes a loss in body weight as large amounts of nutrients are required to produce the large volume of eggs. It takes several months for bodyweight to be replenished (Kissil *et al*., 2001). The maximum reported lifespan is 11 years (FishBase, 2010).

**Uses**
The gilthead seabream is one of the most important commercially cultured species in the Mediterranean with a yearly production of about 70,000 mt (Miggiano *et al*., 2005; Huidobro *et al*., 2001). It is widely eaten cooked and fresh. It is also caught as a gamefish (FishBase, 2010).

**Habitat Description**
Gilthead bream is a warm-temperate marine species that is found in seagrass beds and sandy bottoms as well as in the surf zone. They usually occur to depths of 30 m, but adults may occur to 150 m. They are a sedentary species, and are either solitary or occur in small aggregations. In spring, gilthead bream often occur in brackish water coastal lagoons and estuaries (FishBase, 2010). During the early stages of its life gilthead bream prefer brackish waters and warmer temperatures (Craig *et al*., 2008).

**Reproduction**
The gilthead bream is a protandrous hermaphrodite with about 5% hatching as female (Kissil *et al*., 2001).

**Nutrition**
Gilthead seabreams are voracious opportunistic predators, capable of adapting their diet to the food available in its environment (Balart *et al*., 2009 and references therein). However Pita *et al* found that their diet is more specialized towards gastropods and bivalves. They may also be accessorily herbivorous (FishBase, 2010).

**General Impacts**
Commercial culture of gilthead bream has raised concerns in the Mediterranean about the impact of escaped fish on natural populations. Most Mediterranean fish hatcheries breed gilthead breams from Atlantic broodstocks due to their shape and growth performance. Escapees from commercial fish farms resulting from culture system failure, accidents or carelessness may affect genetic diversity of wild populations (Miggiano *et al*., 2005). Gilthead bream is a voracious predator and its introduction may cause reductions in farmed species such as the Atlantic and Pacific salmon in the rivers and coasts of British Columbia and Chile, and Channel catfish and Asian black carp in the United States, and many tilapia species in north and south America (Balart *et al*., 2009). Other impacts from the introduction of commercial cultures into coastal areas and bays include ecological problems such as eutrophication (Vergara Martín *et al*., 2005 in Balart*et al*., 2009) and the introduction of a broad range of bacterial, fungal and protozoan diseases and parasites (Balart *et al*., 2009; Ivona, 2006). Such impacts may disrupt local ecosystems (González *et al*., 2005).

**Management Info**
Escapees from commercial fish farms are a relatively common occurrence. It is important to identify these escapees and to evaluate their potential genetic impact on wild populations. Molecular genetic marks are the most suitable “tags” for identification as they are permanent, do not require fish handling and are traceable through further generations. Molecular tags using AFLPs and microsatellites were found to be reliable markers for identification of simulated escapees. They were so accurate as to even trace the particular farm and strain of origin. This method is likely to be an effective method to identify escapees in the field and become a tool in responsible aquaculture to monitor the amount of escapees surviving in the wild after accidental releases and the effects on genetic diversity of natural populations. Thus, extensive genetic tagging in gilthead bream broodstocks in the Mediterranean is recommended (Miggiano *et al*., 2005).

**Principal source:**

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**Review:**

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## ALIEN RANGE

**[1]** AUSTRALIA
**[1]** INDIAN - OCEAN WESTERN
**[1]** JORDAN
**[1]** NEW ZEALAND
**[1]** PACIFIC - EASTERN CENTRAL
**[1]** UNITED ARAB EMIRATES
**[1]** BAHRAIN
**[1]** ISRAEL
**[1]** KUWAIT
**[1]** OMAN
**[1]** SAUDI ARABIA

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