

Goldfish

Carassius auratus

 Poisson rouge
  Goldfisch


REGULATIONS

Ornamental fish, not CITES

OPAn: fish standards (minimum volume, water quality; unsuitable bowls prohibited). Release to natural waters prohibited. Garden ponds subject to cantonal rules.



LIFESPAN

10–30 years



ADULT WEIGHT

100–3000 g



ADULT SIZE

15–35 cm



LIFESTYLE

Diurnal, most active mornings/evenings



SEXUAL MATURITY

12–24 months



INCUBATION

3–7 days



LITTER / CLUTCH SIZE

500–3000 eggs



Habitat & environment

 **Type** — Coldwater aquarium with high-capacity filtration, large volume, and high oxygenation

 **Substrate** — Fine non-abrasive sand or bare-bottom; avoid ingestible sharp gravel.

 **Exercise** — Large open swimming area; enrichment via flow variations and exploration zones.



Equipment

- Oversized filtration (5–10x tank volume/h) with ample bio-media
- Circulation/air pump (air stone) for high dissolved O₂
- Regular water testing (NH₃/NH₄, NO₂, NO₃, pH, KH/GH)
- Thermometer; passive/active cooling in summer if >24–25 °C
- Robust plants and soft hides; secure lid
- Gravel vacuum for substrate maintenance and water changes

 Technical parameters


Cool spot

14–18 °C

Typical cool zone; wider tolerance with high O₂ and low nitrogen waste.

Ambient

18–22 °C

Ideal 18–20 °C; avoid sustained >24–25 °C.



pH

7.0–8.0 (tolérance 6.8–8.2)



GH

6–16 °dGH (modérément dur)

NO₂

indétectable (0 mg/L)

NO₃

<20–40 mg/L (idéalement <20)

NH₄NH₃ unionisée indétectable; NH₄⁺ aussi bas que possiblePO₄

aussi bas que possible; limiter charge organique



Lighting

**Photoperiod** — 10–12 h/day**UVB need** — Not required

Moderate lighting; avoid heat build-up from fixtures.

Behaviour

Gregarious, curious fish; active and object-manipulative; may nip inquisitively; sensitive to overcrowding stress.

 **Social life** — Social species: keep in groups (≥ 3 –5) with similarly sized conspecifics; avoid mixing with very small or long-finned species.

 **Activity cycle** — Diurnal with activity peaks morning and evening; nocturnal rest when lights are off.

Enrichment

- Variable flow and exploration zones
- Safe floating/movable objects (rings, robust plants)
- Split feeding and foraging (scatter feeding)
- Safe-foraging substrate

Nutrition

Opportunistic omnivore: goldfish-specific complete feed (pellets or gel) as the staple, supplemented with seaweed/greens. Sized to the mouth, ration precisely; amount eaten within <1–2 min.

Daily base

Pellet

Floating or sinking; pre-moisten floating pellets to limit aerophagia

Gel food

High digestibility; useful for fish with digestive disorders

Nori (seaweed)

Unseasoned; small sheet 1–2×/week as fiber/variety

Vegetables & greens

Fiber intake and prevention of constipation/swim bladder issues. Rinse and blanch 1–2 min; clip slices/leaves in place and remove leftovers after 12 h. Offer in small amounts, 1–2×/week.

Pea

Cooked and peeled (served whole); 1–2 peas/fish, especially in cases of abnormal buoyancy

Zucchini

 **Cucumber**
Peeled

Spinach

Limit intake (oxalate-rich)

Romaine Lettuce

Mild alternative to spinach

Pellets & supplements

Complete staple feed, 30–40% protein, 5–10% lipids, enriched with carotenoids and stabilized vitamin C (ideally ascorbyl-2-phosphate). Choose a size matched to the mouth.

Pellet

Carassius-specific formula

Treats (occasional)

Occasional, in small amounts, for enrichment without unbalancing the diet. Thaw frozen items and rinse well before feeding.

Daphnia

Also possible live; aid digestion; 1–2×/week

Bloodworm / Blackworm

Rich, limit to 1×/week

Brine shrimp

Carotenoid source; 1×/week

Vitamin C

Essential vitamin C; use feeds with stabilized vitamin C; store dry and use within 3 months after opening.

FREQUENCY

- Juveniles (growing): 2–3 small meals/day, eaten within <1–2 min
- Adults: 1–2 small meals/day, eaten within <1–2 min
- Fasting day: 1 day/week to limit obesity and water pollution

TO AVOID

Human foods, starches and uncontrolled prey: digestive risks, nutritional imbalance and water pollution.

Bread

Gluten/starch unsuitable

Pasta

Starch not suited to fish metabolism

Fatty meat

Fatty meat/cold cuts; steatosis



Live prey

Uncontrolled prey (parasites/pathogens);
prefer high-quality frozen alternatives



Health & prevention

Preventive medicine

Quarantine new fish (≥30–45 days), parasite screening (skin/gill scrapes, fecal if feasible), system hygiene (water changes, substrate vacuuming), strict monitoring of water quality (NH₃/NH₄⁺, NO₂⁻, NO₃⁻, pH, KH, GH, temperature, oxygenation), balanced nutrition (high-quality complete diets, split feedings), biosecurity (tank-dedicated equipment).



Vaccination

No routine vaccinations



Surgery & neutering

Excision of cutaneous/gill tumors, swim bladder interventions (aspiration/pexia as indicated), foreign-body removal, wound debridement/closure, opercular deformity correction; bath anesthesia (tricaine/MS-222) with ventilation monitoring.



Common conditions

White spot disease (*Ichthyophthirius multifiliis*)

SYMPTOMS White spots on skin/fins, pruritus (flashing), respiratory distress if gills involved

CAUSE Introduction without quarantine, water-quality/temperature stress

PREVENTION Quarantaine, stabilité thermique, UV stérilisation et bonnes pratiques d'hygiène

Costiasis/*Trichodiniasis* (*Ichthyobodo*/*Trichodina* spp.)

SYMPTOMS Flashing, excess mucus, lethargy, congested gills, juvenile losses

CAUSE Organic loading, overcrowding, carrier introduction

PREVENTION Gestion de la charge organique, quarantaines, entretien régulier

Flavobacterial diseases (*Flavobacterium columnare*/*branchiophilum*)

SYMPTOMS Saddleback skin lesions, fin rot, necrotizing gill disease, respiratory distress

CAUSE Warm water/high organics, stress, high density

PREVENTION Qualité d'eau optimale, réduction du stress, quarantaine

Ulcer disease – *Aeromonas* spp.

SYMPTOMS Skin ulcers, hemorrhages, ascites/dropsy, lethargy, mortality

CAUSE Opportunists thriving in poor water; wounds as entry points

PREVENTION Gestion de l'ammoniac/nitrites, manipulation douce, quarantaine



WARNING SIGNS

- Anorexia > 5–7 days, loss of feeding interest
- Tachypnea, surface gasping, flared gills
- Abnormal swimming (positive/negative buoyancy, sinking)
- Flashing against objects, erratic swimming (pruritus)
- Skin lesions: ulcers, hemorrhages, raised scales (dropsy)
- Exophthalmos, corneal opacities, excess gill mucus/discharge
- Lethargy, isolation, clamped fins

If any of these symptoms appear, prompt veterinary care is essential.

Contact an exotic-pet vet as soon as possible.

Gill myxobolosis (*Myxobolus*/*Cysticola* spp.)

SYMPTOMS Labored breathing, pale/frayed gill lamellae, poor growth

CAUSE Parasite–environment–host cycle in open systems/ponds

PREVENTION Filtration/UV, limitation des hôtes intermédiaires, biosécurité

Swim bladder disorders (buoyancy)

SYMPTOMS Upside/side-floating, inability to stabilize, possible concurrent constipation

CAUSE Swim bladder dysfunction, infections, compression by lipomatosis/tumors, aerophagia/inappropriate diet

PREVENTION Ration adaptée, éviter la suralimentation, qualité d'eau stable, sélection de souches à faible risque (formes moins extrêmes)

Ammonia and nitrite toxicity

SYMPTOMS Surface gasping, reddened/inflamed gills, lethargy, acute mortality

CAUSE Incomplete cycling, overfeeding, inadequate filtration, organic overload

PREVENTION Cyclage préalable, tests réguliers, changements d'eau, capacité de filtration adéquate

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