



Trolling Line Fisheries: An Overview on Artificial Lures

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Trolling line fishing is an efficient and selective fishing method widely used for harvesting pelagic predatory fishes in coastal and offshore waters. The technique involves towing artificial lures behind moving boats to imitate the swimming action of natural prey. Various types of lures such as crankbaits, diving minnows, stick baits, spoon lures, trolling plugs, lipless crankbaits, squid jigs, and jerkbaits are used depending on the target species and fishing depth. These lures differ in design, construction material, swimming action, hook configuration, and operating depth. Hard-bodied diving lures are mainly used for seer fish and tuna, spoon lures provide strong reflective attraction, stick baits target surface predators, and squid jigs are specialized for cephalopod fisheries. Most modern trolling lures are made from durable corrosion-resistant materials and are designed to withstand harsh marine conditions while maintaining high catch efficiency.

Introduction

Trolling, also known as troll lining, is a widely practiced fishing technique used in both commercial and recreational fisheries around the world. Traditional fishermen commonly prefer trolling lines because of their low investment cost, simple operation, and high efficiency in targeting pelagic fishes. This active fishing method involves towing one or more fishing lines behind a moving vessel to catch fast-swimming predatory species such as tunas (*Thunnus* spp.), mackerels (*Scomberomorus* spp.), seer fish (*Scomberomorus commerson*), and dolphinfish (*Coryphaena hippurus*), which are visually oriented predators attracted to moving prey. The trolling gear generally consists of a main line, swivel, snood wire, and hooks or artificial lures. The terminal end of the line is fitted with baited hooks or colourful artificial lures that mimic the appearance and swimming action of natural prey organisms.

A wide variety of artificial lures are used in trolling operations to target different fish species under varying fishing conditions. The selection of lure depends on several factors, including trolling speed, water depth, fish behaviour, and environmental conditions. This article briefly describes the different types of artificial lures commonly used in trolling line fisheries for catching various pelagic fish species.

Importance of lures

Lures are specifically designed to imitate natural prey organisms such as baitfish, needlefish, squid, or injured fish, thereby attracting predatory species through movement, flash, vibration, and colour patterns. Hard-bodied minnows, crankbaits, and deep-diving lures are among the most commonly used trolling lures due to their realistic swimming action and durability. Stick baits and floating jerkbaits are mainly used for surface and shallow-water predators, while spoon lures and casting spoons rely on reflective flashes and wobbling action to attract fish from longer distances. Lipless crankbaits and rattlers use vibration and internal sound chambers to stimulate predatory responses, especially in turbid waters. Specialized

lures such as squid jigs are designed for cephalopod fishing, whereas trolling plugs and Laser Pro lures are optimized for high-speed trolling in offshore fisheries.

These lures are manufactured using durable materials such as ABS plastic, stainless steel, brass, and resin, with corrosion-resistant hooks suitable for marine conditions. They are available in different sizes, colours, weights, and diving depths, enabling fishermen to target a wide variety of species under different fishing conditions.

Different types of lures used in trolling line fishing

This article explains the different types of artificial baits used in trolling line fishery to catch various fish species. Some of them are listed below

1. Crankbait
2. Hard-bodied Diving Minnow Lure
3. Hard-bodied Stick Bait
4. Metal Spoon Lure
5. Deep-diving Minnow Lure
6. Hard-bodied Elongated Deep-diving Minnow
7. Hard-bodied Plastic Minnow Lure
8. Minnow lure
9. Red Head Yellow Tiger Lure
10. Deep Diver Minnow
11. Lipless Crankbait
12. Deep Diver Minnow Lure
13. Holographic Drone Trolling Spoon
14. Floating Minnow
15. Trolling Spoon
16. Casting Spoon Lure
17. Silver Spoon Lure
18. Squid Jig Lure
19. Trolling Plug
20. Hard-bodied Minnow-type Trolling Lure

Table.1. Different types of artificial lures used in trolling line fishery

		
Figure 1: Crank bait	Figure 2: Hard bodied diving minnow lure	Figure 3: Hard-bodied stick bait
		
Figure 4: Metal spoon lure	Figure 5: Deep-diving minnow lure	Figure 6: Hard-bodied, elongated deep-diving minnow
		
Figure 7: Hard-bodied plastic minnow lure	Figure 8: Minnow lure or a hard-body bibbed lure	Figure 9: Red Head Yellow Tiger lure

		
Figure 10: Deep Diver Minnow	Figure 11: Lipless crankbait	Figure 12: Deep Diver Minnow lure
		
Figure 13 :Holographic drone	Figure 14: Floating minnow	Figure 15: Trolling spoon
		
Figure 16: Casting spoon	Figure 17: Silver spoon	Figure 18: Trolling Plug
		
Figure 19: Hard-bodied minnow-type trolling lure		Figure 20: Surface popper lure

1. **Crankbait:** A crankbait is a hard-bodied diving minnow plug made of high-density ABS plastic for durability and buoyancy control. It has a transparent extended lip that creates hydrodynamic resistance, enabling the lure to dive during retrieval. The green-back with black stripes and orange-yellow “Firetiger” colour pattern is commonly used for catching seer fish, barracuda, and billfish. The lure usually weighs about 5–7 g.
2. **Hard-bodied Diving Minnow Lure:** This hard-bodied diving minnow lure is widely used in trolling fisheries along the Gulf of Mannar coast. Constructed from high-density ABS plastic, it has a streamlined fish-like body (12–16 cm; 25–50 g) with metallic blue, silver, and white coloration, realistic 3D eyes, and scale patterns. A plastic diving lip at the front helps the lure dive and create a strong wobbling motion during trolling. It is equipped with two corrosion-resistant treble hooks and is effective at trolling speeds of 4–8 knots for catching predatory fishes such as seer fish and tuna.
3. **Hard-bodied Stick Bait (Needlefish-style Surface/Sub-surface Lure):** This slender stick bait is designed to imitate needlefish and other elongated baitfish. Made from high-density plastic or resin (14–20 cm; 30–70 g), it features a dark green to black dorsal surface with iridescent metallic sides. Unlike diving minnows, it has no lip and produces a gliding or skipping action at 5–9 knots. Equipped with two heavy-duty single hooks, it

is highly effective for seer fish (*Scomberomorus commerson*), tuna (*Thunnus albacares*), *Euthynnus affinis*, and other pelagic fishes.

4. **Metal Spoon Lure (Casting/Trolling Spoon):** This spoon lure is made of polished stainless steel, brass, or copper with a reflective holographic finish. Measuring about 4–7 cm and weighing 10–25 g, it produces wobbling and flashing movements that imitate injured baitfish. Fitted with a single assist hook, it is used for casting, jigging, and trolling at 4–8 knots, targeting seer fish, tuna, barracuda, and mackerel.
5. **Deep-diving Minnow Lure (Long-bill Trolling Lure):** This hard-bodied ABS plastic minnow lure (10–15 cm; 20–40 g) features a long diving lip that allows it to dive 2–5 m while producing a strong wobbling action. It is fitted with two corrosion-resistant treble hooks and performs effectively at trolling speeds of 3–7 knots. The lure is widely used for pelagic predatory fishes in offshore trolling operations.
6. **Hard-bodied Elongated Deep-diving Minnow** This ABS plastic deep-diving minnow (10–12 cm; 12–18 g) has a pink-red dorsal surface with holographic reflective sides and a long transparent diving lip. It dives 2–4 m and creates a vibrating wobbling action resembling an injured fish. Equipped with three corrosion-resistant treble hooks, it is suitable for casting and light trolling for predatory fishes.
7. **Hard-bodied Plastic Minnow Lure:** This ABS plastic minnow lure (9–11 cm; 8–15 g) has a metallic blue-green back, silvery sides, and a small diving lip that enables diving to 1–3 m. It produces a tight wobbling action and is fitted with two single corrosion-resistant hooks instead of trebles, reducing snagging and supporting catch-and-release fishing. It is suitable for trevally, salmon, kingfish, trout, and similar predators.
8. **Minnow Lure / Hard-body Bibbed Lure:** Commonly known as the Barra Boosta, this ABS plastic minnow lure (10–13 cm; 12–22 g) features reflective sides, realistic 3D eyes, and a short diving lip with a swimming depth of 1–2.5 m. It produces a smooth wobbling action and is rigged with two heavy-duty single inline hooks. The lure is effective for barramundi, mangrove jack, queenfish, trevally, and Murray cod.
9. **Red Head Yellow Tiger Lure:** The Pushpa Laser Pro is a hard-bodied trolling and casting lure designed for Indian saltwater fisheries. Available in 160 mm (~20 g) and 190 mm (46–47 g) sizes, it produces a stable wobbling action at 5–9 knots and dives about 2–2.5 m. Its bright “Red Head Yellow Tiger” colour pattern improves visibility and attraction. It is widely used for tuna, kingfish, mackerel, trevally, and mahseer.
10. **Deep Diver Minnow / Laser Pro Lure:** This floating deep-diver lure, inspired by the Halco Laser Pro, is made from high-impact ABS plastic and designed for high-speed trolling. It produces a tight wobbling action and is fitted with heavy-duty saltwater treble hooks. Standard sizes include 160 mm (~20 g) and 190 mm (~46 g), with dive depths ranging from 2–6 m depending on the variant. It is effective for king mackerel, tuna, giant trevally, and barracuda.
11. **Lipless Crankbait / Rattler:** Commonly called the Rattlin’ Rapala, this lipless crankbait is designed for long-distance casting and strong vibration. Its sinking, lipless body contains an internal rattle chamber that enhances attraction in low-visibility waters. Available in sizes from 4–7 cm, it is fitted with two premium treble hooks and produces a high-vibration wobbling action at all retrieval speeds.
12. **Deep Diver Minnow Lure:** This high-impact ABS plastic lure features a streamlined body with a tiger-stripe colour pattern for enhanced visibility. It produces a stable wobbling action at trolling speeds of 4–8 knots and dives when retrieved. Available in 160 mm (~20 g) and 190 mm (~40–50 g) sizes, it is equipped with corrosion-resistant hooks and is effective for seer fish, tuna, trevally, and barracuda.
13. **Holographic Drone Trolling Spoon:** This trolling spoon has a thin aerodynamic body with a reflective holographic finish that creates intense flashes underwater. Its curved design produces erratic wobbling, darting, and spinning actions when trolled. Equipped with a heavy-duty single hook, it is effective for Spanish mackerel, kingfish, bluefish, and bonito.

14. **Floating Minnow / Jerkbait:** This floating minnow or jerkbait (13 cm; ~23 g) is designed for long-distance casting and shallow-water fishing. It operates at depths of 0–1 m and produces realistic wobbling and rolling movements. Many models include a magnetic weight-transfer system and are fitted with three treble hooks. It is effective for giant trevally, queenfish, barracuda, and snapper.
15. **Trolling Spoon:** This offshore trolling spoon is made from corrosion-resistant stainless steel with holographic reflective finishes in pink, green, or yellow. It produces erratic wobbling and darting actions at trolling speeds of 2–6 knots. Usually paired with a planer or downrigger, it is highly effective for Spanish mackerel, kingfish, trevally, and seer fish.
16. **Casting Spoon Lure:** This sinking casting spoon is made of chrome-plated steel or brass with a reflective dimpled surface. Available in 14–60 g weights, it produces an erratic wobbling action and allows long-distance casting. Its fast sink rate makes it ideal for surf casting and vertical jigging for trevally, queenfish, and snapper.
17. **Silver Spoon Lure:** This weedless spoon lure has a thick metal body with a permanently attached single hook and a metal wire weed guard that prevents snagging in vegetation. It creates strong flash and wobbling vibrations, imitating wounded baitfish. It is commonly used in mangroves, backwaters, and seagrass beds for tuna, billfish, and snapper.
18. **Trolling Plug (Salmon Plug / Tomic-type):** This trolling plug is made from high-impact plastic with a bullet-shaped body and slanted face acting as a diving lip. It produces an erratic swimming action that mimics injured baitfish. Usually fitted with a strong single Siwash hook, it performs well at moderate to high trolling speeds and is effective for seer fish and tuna in regions such as the Gulf of Mannar.
19. **Hard-bodied Minnow-type Trolling Lure:** This is a hard-bodied minnow-type trolling lure commonly used by traditional fishermen in Kombuthurai, Gulf of Mannar. Made of durable plastic, it has a streamlined fish-like body (12–18 cm; 20–60 g) with metallic blue and silver coloration to imitate baitfish. It is fitted with corrosion-resistant hooks at the mid-body and tail. When trolled at 4–8 knots, it produces a wobbling action that attracts predatory fishes such as seer fish (*Scomberomorus commerson*) and tuna (*Thunnus albacares*). Its durability and reusability make it popular in local trolling fisheries.
20. **Surface popper lure:** It is also known as a cup-faced popper or offshore popping lure, is specifically designed for trolling and casting operations aimed at large pelagic predators such as yellowfin tuna, dogtooth tuna, giant trevally, mahi-mahi, and Spanish mackerel. It features a cylindrical, elongated body with a concave, cup-shaped head, typically crafted from hard plastic, resin, or wood and coated with a glossy, waterproof finish. The black body is complemented by a silver side finish and pink stripe markings, which enhance its visual appeal to predatory fish. Equipped with double inline stainless steel hooks (sizes 4/0 to 8/0), the lure is highly resistant to saltwater corrosion. Measuring 10–20 cm in length and weighing 40–120 g, this popper is highly effective for surface trolling and popping techniques, making it a trusted choice for offshore fishing enthusiasts.

Conclusion

Artificial lures play a vital role in modern trolling line fisheries by improving catch efficiency and reducing dependence on natural bait. Their realistic appearance, attractive movement, vibration, and reflective properties effectively stimulate predatory behaviour in pelagic fishes. Different lure designs allow fishermen to target species at various depths and environmental conditions, making trolling fisheries more versatile and productive. The use of durable and reusable artificial lures also supports sustainable fishing practices by minimizing bait requirements and reducing operational costs. Therefore, the proper selection and application of trolling lures are essential for enhancing the efficiency and economic viability of marine trolling fisheries.

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