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IKAN ROA (*HEMIRAMPHUS SP.*)

Yes—this looks like **ikan roa**, a fish commonly known in Indonesia, especially in **Sulawesi Utara (Manado area)**.

More precisely, it is generally grouped with the **halfbeak/garfish type fish** from the family **Hemiramphidae**. Its most recognizable features are:

a **long, slender silver body**

a **pointed beak-like mouth**

a **dark back and shiny sides**

a **forked tail**

In everyday Indonesian usage, people often call it **ikan roa**, although in some places it is also associated with **julung-julung** type fish.

What is ikan roa known for?

Ikan roa is very famous not only as a fresh fish, but especially as a **smoked fish**. After being smoked, it is often shredded or pounded and used to make:

sambal roa

filling for snacks or pastries

side dishes mixed with spices

Taste and culinary character

Roa has a **savory, strong, slightly smoky aroma** when processed traditionally. That is why it is popular in eastern Indonesian cuisine. Sambal roa is especially well known because it combines:

the smoky taste of the fish

chili heat

a rich umami flavor

Nutritional value

Like many marine fish, ikan roa generally contains:

protein

omega-3 fatty acids

minerals such as **calcium and phosphorus**

vitamins that support body metabolism

If it is smoked or salted, the flavor becomes stronger, but the sodium content can also be higher.

Important note

If you are referring to "**ikan roa**" in the **culinary sense**, people in Indonesia usually mean the fish after it has been **smoked and processed**.

If you are referring to the **biological identity**, the exact species can vary by locality, but it is commonly understood as a **long-beaked marine fish of the halfbeak group**.

So, in simple terms:

Ikan roa is a long, silver, beak-mouthed sea fish, very popular in North Sulawesi, especially for making smoked roa and sambal roa.

Certainly.

Ikan Roa: Characteristics, Habitat, Economic Value, and Culinary Importance in North Sulawesi

Ikan roa occupies an important place in the culinary and cultural life of eastern Indonesia, especially in **North Sulawesi**. In everyday usage, the name "ikan roa" usually refers not only to the fish itself, but also to the processed smoked product that later becomes the base ingredient for **sambal roa**, one of the best-known regional food products from Manado and surrounding areas. Because of this dual identity, ikan roa should be understood both as a biological resource and as a socio-economic commodity.

From a morphological perspective, ikan roa is recognized by its **elongated, streamlined, silvery body** and its **beak-like mouth**, which makes it visually distinctive from many other small marine fish. Its body shape suggests adaptation to active swimming in coastal and open-water environments. The shiny silver coloration along the flanks is typical of pelagic fish that live in waters where camouflage against light is useful. The fish in your picture clearly shows these characteristics: a narrow body, pointed snout, and forked tail.

In local classification, people often identify it simply as "roa," while in scientific or fisheries discussions it may be associated with the **halfbeak or garfish-like group**. In practical Indonesian food culture, however, the culinary identity is often more important than exact taxonomic precision. That is why the word "roa" is widely understood by consumers, traders,

and households even when they may not know the formal scientific name.

Habitat and ecological setting

Ikan roa is a **marine fish**, generally associated with **coastal waters**, island environments, and tropical seas. In the Indonesian context, it is especially linked with waters around **Sulawesi**, particularly North Sulawesi and nearby eastern Indonesian regions. Fish of this type are often found in waters that support small-scale coastal fisheries, where local fishers depend on nearshore or moderately offshore catches.

Its ecological presence is significant because such fish are part of the broader marine food web and also part of the livelihood base of coastal communities. In areas like North Sulawesi, fishing is not only an economic activity but also an inherited way of life. Thus, ikan roa should be viewed not merely as a commodity, but as part of a coastal socio-ecological system in which marine biodiversity, artisanal fishing knowledge, and local food traditions interact.

Processing and preservation

One of the most important reasons ikan roa became culturally prominent is that it is highly suitable for **traditional preservation through smoking**. Smoking extends shelf life, intensifies flavor, and makes the fish easier to transport and market. This is especially relevant in island and coastal societies where cold-chain infrastructure was historically limited. In such settings, smoking was not only a culinary choice but also a rational preservation technology.

The transformation from fresh roa to **smoked roa** changes its economic and cultural value. A fresh fish is perishable and locally constrained; a smoked fish becomes a tradable product with stronger market identity. This processing step is one reason why ikan roa became widely recognized beyond fishing villages. Once smoked, it can be stored

longer, sold in urban markets, packaged for tourists, and used as a signature regional ingredient.

Culinary significance

The strongest cultural association of ikan roa today is undoubtedly **sambal roa**. This preparation combines shredded smoked fish with chili, aromatics, and oil, producing a condiment with a strong smoky, spicy, and savory character. Sambal roa is not merely a side dish; it has become a marker of regional identity. For many people, North Sulawesi cuisine is immediately associated with this product.

Its culinary significance is multidimensional. First, it reflects local taste preferences that value bold and expressive flavors. Second, it demonstrates how preservation technology can shape regional gastronomy. Third, it shows how a relatively simple marine resource can be elevated into a branded cultural food product.

In academic terms, sambal roa may be understood as a form of **food heritage**, where local biodiversity is transformed through tradition, household skill, and intergenerational culinary knowledge into a product with symbolic and economic value. It is also an example of how local cuisine becomes part of regional branding and food tourism.

Nutritional relevance

As a marine fish, ikan roa is generally valued as a source of **animal protein** and potentially **beneficial fatty acids**, including omega-related nutrients commonly associated with fish consumption. It also contributes minerals important for human nutrition. In coastal diets, fish such as roa can play an important role in supporting protein intake and dietary diversity.

However, once the fish is smoked and processed into sambal or preserved products, nutritional characteristics can shift. Smoking may

concentrate flavor, while the addition of salt, oil, and chili in processed preparations can increase sodium and fat content. Therefore, from a public-health perspective, ikan roa is nutritionally valuable, but processed products should still be consumed in balance.

Economic value for coastal communities

The economic importance of ikan roa lies not only in capture fisheries but also in the **value chain** surrounding it. This chain includes:

fishers who catch the fish

processors who smoke it

small traders and market sellers

home industries making sambal roa

retailers and gift-food businesses

This means roa supports livelihoods at multiple levels, particularly among **small-scale and household-based enterprises**. In many Indonesian regions, such value-added processing is crucial because it allows communities to earn more than they would from selling raw fish alone.

For women in particular, processed food products such as sambal roa often create opportunities for **micro-enterprise development**, home-based production, and local entrepreneurship. In this sense, ikan roa contributes not only to fisheries income but also to the broader rural and coastal economy.

Cultural identity and regional symbolism

In North Sulawesi, ikan roa has symbolic value beyond its material use. It represents a connection between sea, community, and cuisine. Food products often become cultural shorthand for a region, and sambal roa has clearly acquired that status. It appears in households, local markets,

inter-island trade, and souvenir commerce. Through such circulation, it becomes part of how a region presents itself to outsiders.

This symbolic role matters academically because it shows how food can function as a bearer of **place identity**. A fish is no longer just a biological organism; it becomes part of collective memory, daily practice, and regional pride.

Sustainability concerns

Like many locally valued fish resources, ikan roa also raises questions of sustainability. When demand for a fish rises because of its commercial and culinary popularity, pressure on natural stocks can increase.

Without careful management, a culturally valuable species can become economically overexploited. Thus, the long-term preservation of ikan roa as a culinary and economic resource depends on balancing use with conservation.

Concluding reflection

Ikan roa is significant not simply because it is a fish consumed in Indonesia, but because it sits at the intersection of **marine ecology, local economy, traditional preservation, and regional cultural identity**. In North Sulawesi especially, it has evolved from a coastal fish resource into a product of strong culinary distinction. Through smoking, trade, and transformation into sambal roa, it has acquired added value that extends far beyond its biological form.

In that sense, ikan roa provides an excellent example of how local natural resources can become part of a wider cultural economy. It is a fish, but it is also a story of community adaptation, food tradition, and regional identity.

If you would like, I can next turn this into a **short academic article of about 1,000–1,500 words** with headings, or a **teaching module** on ikan roa for classroom use.

The **Latin name most commonly given for ikan roa is *Hemiramphus sp.***, meaning it is usually identified at the **genus** level rather than pinned to one exact species in many Indonesian fisheries and food-processing references. ([Neliti](#))

In some Indonesian reference materials, **ikan roa is specified more narrowly as *Hemiramphus brasiliensis***. A government fish database also links **ikan roa / julung-julung / ballyhoo halfbeak** with ***Hemiramphus brasiliensis***. ([WikiPangan](#))

So, the safest way to state it is:

Ikan roa: *Hemiramphus sp.*

Often identified specifically as: *Hemiramphus brasiliensis*

There is some naming variation in local and culinary usage, so for an academic or teaching note, writing **"ikan roa (*Hemiramphus sp.*), commonly associated with *Hemiramphus brasiliensis*"** would be the most careful wording.

Here is a **Glossary and References (APA 7)** for **ikan roa**.

Glossary

Ikan roa

A common Indonesian name, especially in North Sulawesi, for a long, slender marine fish with a beak-like mouth, commonly associated with

the genus *Hemiramphus*. In culinary usage, the term often refers both to the fish itself and to its smoked form used in regional dishes. ([Neliti](#))

***Hemiramphus* sp.**

A scientific notation used when a fish is confidently identified to the genus level but not always to a single confirmed species. Several Indonesian academic and fisheries-related sources refer to ikan roa as *Hemiramphus* sp. ([Neliti](#))

Hemiramphus brasiliensis

A species name often linked in Indonesian culinary and popular references to ikan roa. Some local food and fish-reference sources specifically identify roa as *Hemiramphus brasiliensis*, although academic handling in Indonesia sometimes remains at genus level only.

([WikiPangan](#))

Hemiramphidae

The fish family commonly known as the halfbeaks. Members of this family are recognized by their elongated bodies and characteristic beak-like jaws. FishBase places *Hemiramphus brasiliensis* in this family.

([FishBase](#))

Halfbeak

The common English name for fishes in the family Hemiramphidae. In Indonesian local usage, ikan roa is often understood as part of this halfbeak group. ([Neliti](#))

Julung-julung

A local Indonesian name often used for fish with a long, narrow body and pointed jaws. In some references, ikan roa is associated with the julung-julung type fish. ([Wikipedia](#))

Smoked roa

Roa fish processed through traditional smoking, a common preservation method in eastern Indonesia. This smoked product is culturally and

economically important because it is widely used in local cuisine and has a longer shelf life than fresh fish. ([Neliti](#))

Sambal roa

A traditional spicy condiment from Manado and North Sulawesi made primarily from smoked roa fish mixed with chili and seasonings. It is one of the best-known regional food products associated with ikan roa.

([WikiPangan](#))

Organoleptic quality

Quality attributes assessed through the senses, such as appearance, aroma, taste, and texture. Several Indonesian studies on smoked roa focus on organoleptic quality as an indicator of acceptability and marketability. ([Neliti](#))

Traditional fish smoking

A preservation technique using smoke from burning wood to reduce spoilage, add flavor, and extend shelf life. In the case of ikan roa, this process is central to its culinary identity in North Sulawesi and Gorontalo.

([IPB Journal](#))

References (APA 7)

FishBase. (n.d.). *Hemiramphus brasiliensis*, ballyhoo halfbeak. FishBase. <https://fishbase.se/summary/Hemiramphus-brasiliensis>

Patty, C. N., Dotulong, V., & Montolalu, R. I. (2018). *Mutu ikan roa (Hemiramphus sp.) asap yang ada di Pasar Bersehati Kota Manado Sulawesi Utara*. Jurnal Media Teknologi Hasil Perikanan.

<https://ejournal.unsrat.ac.id/v3/index.php/jmthp/article/view/21386/2109>

[2](#)

Wikipangan. (2025). *Sambal roa*. Wikipangan.

https://wikipangan.id/wiki/Sambal_roa

Yusuf, N. (2020). *Analisis mutu organoleptik dan kadar air ikan roa (Hemiramphus sp.) asap dengan metode pengasapan berbeda*. Jurnal Ilmu Produksi dan Teknologi Hasil Peternakan/related institutional repository version.

<https://journal.ipb.ac.id/JIPI/article/download/27360/20575/116283>

Wikipedia contributors. (n.d.). *Roa*. Wikipedia Bahasa Indonesia.

<https://id.wikipedia.org/wiki/Roa>

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