



Photo credit: Sourabh Kumar Dasgupta/WaterFish

Preserving cultural heritage: Community fishing among the Rabha community in Assam



Implemented by
giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

Preserving cultural heritage: Community fishing among the Rabha community in Assam

Authors

Sourabh Kumar Dubey, Kalpajit Gogoi, Ben Belton, Arun Padiyar, Suresh Rajendran and Francois Rajts.

Citation

This publication should be cited as: Dubey SK, Gogoi K, Belton B, Padiyar A and Rajts F. 2023. Preserving cultural heritage: Community fishing among the Rabha community in Assam. Penang, Malaysia: WorldFish. Case Study: 2023-16.

Acknowledgments

This work received financial support from the German Federal Ministry for Economic Cooperation and Development (BMZ) commissioned by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) through Fund International Agricultural Research (FIA), grant number: 81260866. It was also supported by the World Bank-funded Assam Agribusiness and Rural Transformation Project (APART), Government of Assam. The authors are thankful to Dr. Vishnumurthy Mohan Chadag for his suggestions. Dr. Ben Belton is currently affiliated with the International Food Policy Research Institute. This work was undertaken as part of the CGIAR Initiatives on Aquatic Foods led by [WorldFish](#). The program is supported by contributors to the [CGIAR Trust Fund](#).

Contact

WorldFish Communications and Marketing Department, Jalan Batu Maung, Batu Maung, 11960 Bayan Lepas, Penang, Malaysia. Email: worldfishcenter@cgiar.org

Creative Commons License



Content in this publication is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License ([CC BY-NC 4.0](#)), which permits non-commercial use, including reproduction, adaptation and distribution of the publication provided the original work is properly cited.

© 2023 WorldFish.

Photo credits

Front cover, pages 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, Sourabh Kumar Dubey/WorldFish.

Table of contents

One festival, many names	1
Casting nets of unity: A symbol of togetherness and shared passion	2
Barjong beel: A triumph for community-governed wetlands	3
Celebrating Bahow: The annual festive fishing of the Rabha	4
Traditional fishing techniques in a changing world	5
Celebrating the abundance of SIS: Small but mighty	9
Reconciling culture, livelihoods and conservation	11
Epilogue	12
References	13

One festival, many names

Northeast India, with its abundant rivers and streams, is home to some of the most diverse aquatic ecosystems in the world. Fishing has been an integral part of the culture and livelihoods of the people in this region for centuries. Among the various forms of fishing practiced in the region, community fishing stands out as a unique and traditional custom that has been passed down from generation to generation, where indigenous people come together to catch fish from rivers, streams, wetlands and other water bodies to preserve their cultural heritage, sustain indigenous practices and strengthen social bonds.

Across the country, fishing communities celebrate their occupation in many elaborate ways, and by many different names. Manipur, for example, is home to several fishing festivals. One of the most traditional celebrations is the Khairi Kashao festival, also known as Yaithab. This festival is a customary celebration held by the Tangkhul tribe in the state. Also in Manipur is the Karjoi fishing festival, an annual celebration held by the Maram tribe that typically takes place in March or April. This festival is a testament to the tribe's age-old fishing techniques, which have been passed down through generations. During the Holy week of Good Friday, Christian communities in the hilly districts of Manipur, particularly in remote villages, engage in group hunting to fish in the forested rivers (NFDB 2021).

In Assam, Makar Sankranti is celebrated as "Magh Bihu" or "Bhogali Bihu," marking the culmination of the harvesting season in the region. Community fishing is a common tradition of various ethnic people during Bihu, which is practiced throughout Assam, particularly in wetlands and forested river landscapes. The Lotha and Sumi tribes in Nagaland celebrate their festive fishing in rivers using piscicidal plants, a practice that is also prevalent in various parts of Arunachal Pradesh, Meghalaya and Tripura (Ovung et al. 2022).



A traditional fisherman from the indigenous Rabha community in Assam.

Casting nets of unity: A symbol of togetherness and shared passion

One of the enduring traditions that have been passed down through generations, and are still actively practiced today, is indigenous fishing. Primarily used for food and recreation, indigenous fishing has crucial implications for the culture, livelihood and environment of traditional communities in northeast India. In many of Assam's non-protected floodplain wetlands, community fishing is a distinctive traditional activity in which several hundred people from different rural commons actively participate. Locally known as beels, these floodplain wetlands are primarily backswamps and oxbow lakes that were formed as a result of meandering rivers and tectonic depressions (CIFRI 2000). These biodiverse wetlands support the livelihoods and dietary needs of thousands of fishers in the riparian population and offer multiple uses for water.

In Assam, most of the beels are either leased by the government or run by the local community. Although some beels are closed in nature, others retain their connection to the rivers by maintaining a unique water renewal pattern. During the dry season, when the water recedes from the beels,

hunter-gatherers assemble in large numbers with traditional fishing implements to trap, net and catch fish by hand. Typically, community fishing takes place once a year on a predetermined date or coincides with a local festival of the riparian communities.

In Assam, community fishing is mostly caste-based, dominated by tribes such as the Rabha, Bodo, Hajong and Garo, followed by the Kaibarta, which is a specific fisher sub-caste. Since antiquity, community fishing has left a lasting impression and become ingrained in the local festivals, customs and culture of these rural communities. For instance, the Rabha view community fishing as more than just fishing. For them, it is a heritage festival in which the villagers participate, with the understanding that fishing fosters camaraderie, togetherness and cultural ties among the communities.

This case study showcases community fishing at the Barjong beel in Assam, which is a widespread tradition among rural tribal populations throughout the state. It is a symbol of unity and cultural bonding among the locals.



Community fishing at the Borjong beel in Assam.

Barjong beel: A triumph for community-governed wetlands

Among the seven northeastern states of India, Assam has the largest number of wetlands, with over 100,000 ha, accounting for 70 percent of all wetlands in the region (SAC 2011). The Barjong beel, situated on the northern edge of the village of Barjong in Goalpara District, is a perennial freshwater wetland spanning approximately 35 ha in size. Goalpara is located in the southwest of Assam, with the mighty Brahmaputra River flowing along its northern border. The beel receives annual inflows from the Jinjiram River, which is a southern tributary of the Brahmaputra and forms a natural boundary between Meghalaya and Assam.

The Barjong beel offers a range of ecosystem services to the adjacent communities, including water storage, flood control, groundwater level regulation, agriculture and ritual chores. This lentic ecosystem sustains rich floral and faunal diversity, including a thriving capture fishery. The fisheries productivity of this medium-sized wetland is 500–550 kg/ha.

Although fishing with traditional gear is allowed throughout the year, mass fishing, commercial fishing and aquaculture activities are not permitted in the Barjong beel. However, while the Assam Fisheries Rules, 1953 (Amended, 2005) prohibit fishing for 105 days a year (April 1 to July 15) to protect spawning fish, broodfish and breeding grounds in order to increase fish production, the majority of fishers are unaware of this restriction. In addition, use of small-meshed mosquito nets in any open water ecosystem is prohibited throughout the year.

Because of its ecological diversity, the beel supports large populations of resident water birds and migratory birds, many of which are threatened and endangered. Common species include lesser adjutants, cormorants, Asian openbills, lesser whistling ducks, jacanas, red-wattled lapwing, common sandpipers and kingfishers. In addition, free floating, emergent and submerged aquatic macrophyte exist throughout the year, becoming prevalent during the summer.

The beel is managed by the Barjong Beel Fisheries Committee (BFC), which was formed in 2013. This community-based grassroots institution is currently led by Shri Narendra Rabha as general secretary and Shri Hem Chandra Rabha as president. Since 2018, it has been responsible for various beel development and conservation initiatives, conflict resolution and, most importantly, arranging community fishing.

The BFC announces the date for community fishing at the Barjong beel every year. It also organizes a competition among the participants for the biggest catch made while fishing. As the festival has gained popularity in the village, the BFC charges each fisher INR 30 to participate. This provides an opportunity to generate the BFC's corpus, which is used for various community development works. For instance, the BFC has built earthen bundhs around the beel to prevent siltation from nearby catchment areas because of agricultural activities. This project received financial support from the Department of Irrigation, Government of Assam. Through its efforts, the BFC has helped increased fish production and the conservation of the wetland ecosystem.



The Rabha perform rituals before community fishing starts at the Barjong beel.

Celebrating Bahow: The annual festive fishing of the Rabha

The Rabha tribe is one of Assam's earliest ethnic communities, with a unique and vibrant culture all their own (Bordoloi 1987). They belong to the greater Tibetan-Burman linguistic ethnic group and have Indo-Mongoloid origins. Although the Rabha are spread throughout Assam and its neighboring states, they are mainly concentrated in the districts of Goalpara, Kamrup, Bongaigaon, Kokrajhar and Darang in Assam.

The Rabha have their own language, which is passed down verbally from generation to generation and is not clearly written. They preserve and practice their language through a variety of religious hymns and songs associated with various festivals. Rabha society is governed by the tribe's own traditions and customs and is matriarchal in nature.

The traditional economy of the Rabha is largely based on agriculture and forest-based activities. Fishing in rivers, beels and streams is an integral part of their social and recreational life. They have a deep understanding of their natural environment and, over the years, have developed sustainable fishing practices. Overall, the Rabha tribe's unique culture and close relationship with nature make them an integral part of Assam's diverse cultural heritage.

Community fishing in the Rabha community is popularly known as Bahow. It takes place at the Barjong beel when the water typically reaches knee height in the month of Chot (March), the last month of the Assamese almanac. From early in the morning until late in the day, nearly 10,000 people from places like Dudhnoi, Tirikila and surrounding districts, as well as the neighboring state of Meghalaya, participate in fishing activities. These communities belong to the castes Rabha, Garo and Bodo, as well as Kaibarta, Rajbongshi, Kalita, etc.

Participants of all age groups, including women, men and children, take part in Bahow, with women making up about 55–60 percent of the total gathering. Fishers travel in groups with their fishing gear, some from distant locations in rented pickup vans to reach the fishing ground, while

nearby communities come by foot or bicycle. Some groups bring their own food, while others cook at the fishing ground, using captured fish and locally prepared rice beer.

The majority of fishers take part in Bahow not for financial gain but rather for enjoyment and celebration as well as for their own consumption. The event attracts thousands of spectators from various places gathered at the beel to watch and support this amateur mass fishing event. The fishing is done in harmony, without squabbles with fellow fishers, and with a shared understanding of the designated gear-based fishing areas. The tribal population applauds every accomplishment, fishes gleefully while singing fishing hymns in their native tongues, and is happy with whatever catch is made.



Women represent over half of the people who gather together for community fishing.

Traditional fishing techniques in a changing world

The use of traditional fishing methods is a testament to the extensive local ecological knowledge that has been passed down over time. Despite the development and mechanization of the fishing industry, these methods have managed to endure. In Assam, the traditional fisheries methods and fishing gear that have been used in the rivers and floodplain wetlands are well documented (Baruah 2017; Baruah et al. 2018). Various factors influence their selection, such as the characteristics and topography of the fishing ground, the type and size of fishstock, the availability of raw materials, fishing seasons and gender-specific knowledge and skills.

During Bahow, Rabha and other tribal communities at the Barjong beel use various types of fishing gear, broadly classified into scoop nets, lift nets, plunging baskets, cast nets and spears. As shown in Figure 1, a quick survey conducted during the event identified nine different kinds of indigenous fishing gear and traps. For example, most women fishers prefer lift nets, called porongi jal, while men prefer plunging baskets, like polo and juluki. Women also frequently use scooping implements such as jakoi, chalonee and khorahi, as shown in Figure 2. All the fishing gear that the community uses is made traditionally, using bamboo and locally available materials. As part of their indigenous traditional knowledge, the fishing communities often use gaub or kandu fruits and leaves to dye and strengthen their fishing nets.

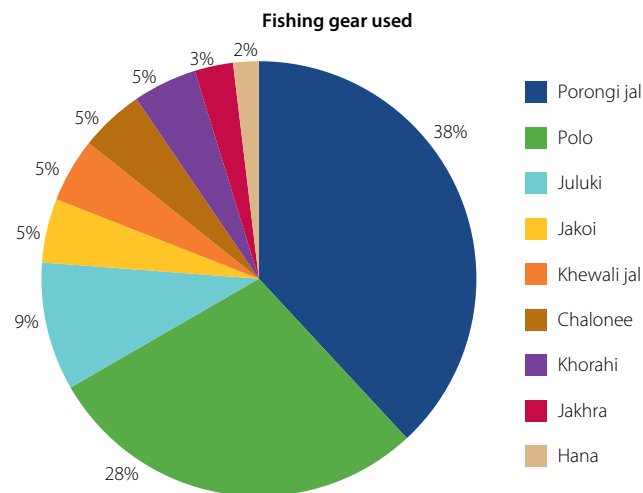


Figure 1. Different gear used during community fishing at the Barjong beel.

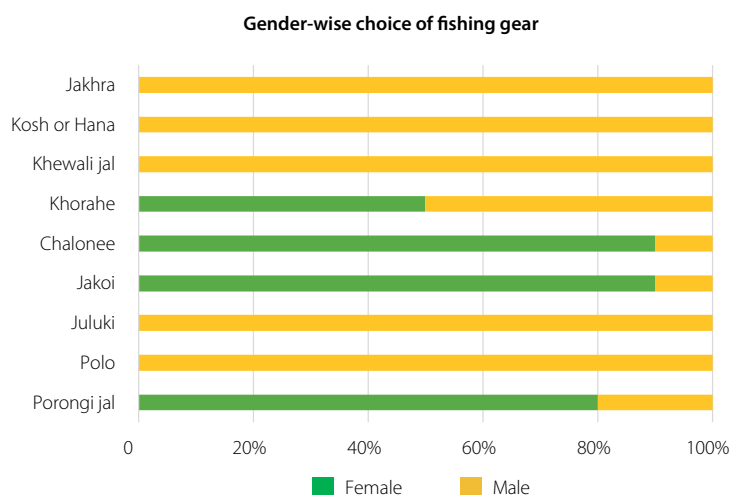


Figure 2. Gender-wise preferences of fishing gear during community fishing at the Barjong beel.

The fishing gear that the Rabha community uses is unique in its various shapes and sizes and is tailored for specific types of fish.

- Polo and juluki are plunging baskets used to capture medium- to large-sized fish such as murrels, carps and mud-dwelling species. These cone or bell-shaped traps are made of finely woven bamboo strips and are plunged into the mud by hand, with one hand inserted through the opening at the top to catch fish.
- Porongi jal, which is a type of lift net, is used to catch small fish. This women-friendly gear type consists of an arched frame made of split bamboos, with a square-shaped net attached to it. The gear is placed either at the dike of a water body or in midwater, and the fish swimming above the net are caught by periodically lifting it.
- Chalonee is another type of gear used to catch small and medium-sized fish. It is a saucer-shaped circular sieve made of a bamboo mat that is placed beneath floating aquatic weeds or water hyacinths. Fish hiding in the roots of these plants are then shaken onto the sieve, making it easier to catch them.
- Spears known as kos or hana and jakhra are gear that is primarily used by a single person. These instruments consist of 20–25 sharp bamboo splits or barb-tipped iron rods, tightly bound in a bunch at the end of a 2.5–3 m bamboo pole. They are used to catch big fish such as catfish, murrels, carps and freshwater eels that thrive in soft, muddy areas of aquatic bodies.



Khaloi is an indigenous fish storage pot with a cover known as mukha.



Women using porongi jal (lift nets).



Synchronized polo fishing is done mostly by men.



Photo credit: Sourabh Kumar Dubey/WorlDFish

A cast net known as khwali jal.

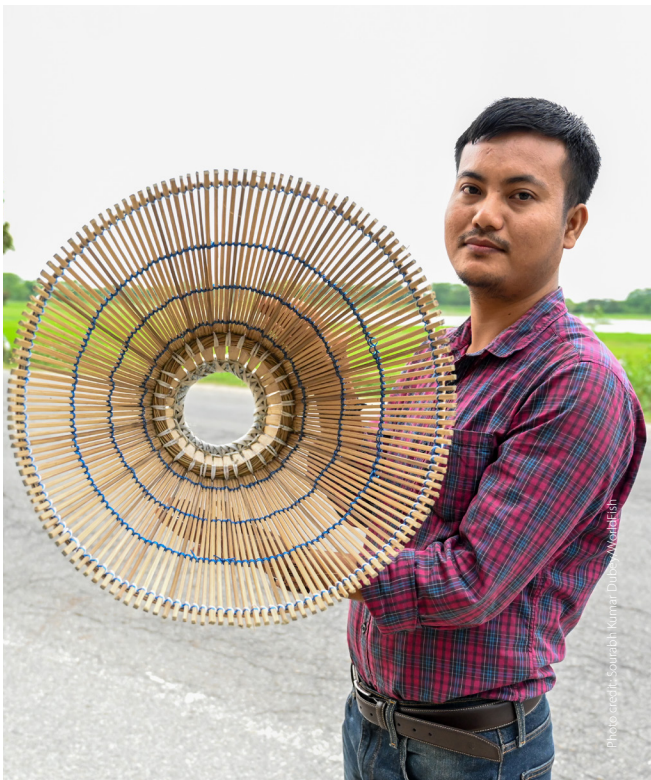


Photo credit: Sourabh Kumar Dubey/WorlDFish

A plunging basket known as polo.



Photo credit: Sourabh Kumar Dubey/WorlDFish

A lift net known as porongi jal.

Celebrating the abundance of SIS: Small but mighty

A quick assessment of the catch reveals that there are 39 different species of fish, belonging to 10 Orders and 18 Families, with more than 70 percent being small indigenous fish species (SIS). SIS are less than 25 cm standard length and commonly found in freshwater ecosystems. Considered “superfoods,” they are packed with micronutrients such as essential minerals and vitamins, which are important for cognitive development and human health. However, although formerly plentiful and cheap in Assam, SIS are declining in diversity in several parts of the state for various reasons and have become expensive.

Table 1 includes a detailed species list of the species, along with their local names. The most commonly found SIS are darikona (*Esomus danrica*), mola (*Amblypharyngodon mola*), puthi (*Puntius sophore*, *Pethia conchonius*), kholihona (*Trichogaster fasciata*), singora (*Mystus tengara*), kokila (*Xenentodon cancila*), tura (*Macroglyptus aral*), bami (*Mastacembelus armatus*), chanda (*Chanda nama*), pavo (*Ompok pabo*), kawoi (*Anabas testudineus*), chengeli (*Channa gachua*)

and goroi (*Channa punctata*). Among the big catch, shoal (*Channa striata*), chital (*Chitala chitala*) and barali (*Wallago attu*) are common. Fishers also catch freshwater crabs. The average per capita fish catch during community fishing is difficult to estimate and not all are getting catch, though it ranges from 250 g to 1.5 kg for SIS and 500 g to 2.5 kg for big fish.

Assamese cuisine revolves around different forms of SIS, such as fresh, dried and fermented, and indigenous ethnic communities in the region have developed rich knowledge systems for preserving SIS and traditional fish-based food products. Dried SIS, like mola and puthi, known as hukan mas in Assam, fetch high prices in the market because of their unique taste and the community’s preference for them. The fermented product shidol, made exclusively from puthi, is a source of pride for people in the northeast. The tribal community’s famous fish-based product, hukati, is made from dried SIS, along with vegetables and herbs. Each has a distinctive flavor and is believed to have medicinal and nutritional value.



Photo credit: Sourabh Kumar Dubey/WorldFish

Mixed SIS caught during community fishing.



Shoal (*Channa striata*) are among the biggest catch using polo.



Barali (*Wallago attu*).

Reconciling culture, livelihoods and conservation

In the Barjong beel, the BFC found that species diversity is declining, which results in dwindling fish catch and truncates the interests of fishers. As such, many traditional fishers are now choosing to leave their ancestral profession and pursue land-based employment. To address this issue, enthusiastic community participation and government support are crucial to improve the fisheries productivity of the beel and enhance fishstocks, according to General Secretary Narendra Rabha. To accomplish this, the BFC plans to demarcate certain areas within the beel as “no fishing zones” to propagate conservation awareness. Although most of the people are not aware of the fishing ban in the beel, the BFC wants to make it easier for people to comply. According to Narendra, greater diversity of fish in the beel during Bahow would attract more communities. The community believes that Bahow, which occurs during the winter, when the water is typically drying out, has no adverse effects on the beel’s ecosystem. However, significant disturbances of

the mud during the festival can release obnoxious gases. During the months of June and July, the beel receives water from the river and experiences the first monsoon rains. This rejuvenates the ecosystem, creating a suitable environment for fish to reproduce and aquatic vegetation to grow, providing food for grazing cattle.

Despite anthropogenic interventions such as agriculture and urbanization, leasing out beels is becoming a growing concern. This could lead to the marginalization of impoverished fishing populations, compromise the ancestral fishing rights of traditional beel users and hinder social cohesion. Therefore, it is essential to introduce better policies with fiscal instruments, in which all stakeholders, including the community, must work collectively to achieve a shared goal. By doing so, it is possible to promote sustainable fishing practices while preserving the cultural heritage of the region.



Fishers catch a sarali han (lesser whistling duck) while fishing.

Epilogue

One of the most significant benefits of community fishing is that it acts as a catalyst to promote social cohesion and unity among members. Fishing together creates a sense of camaraderie and shared responsibility, which strengthens the bonds between individuals and promotes social harmony. Moreover, community fishing also provides an opportunity for elders to pass down their traditional fishing knowledge and skills to the younger generation.

From an economic perspective, community fishing provides an additional source of income for participating members. The fish caught are either consumed by the community members or sold in local markets. In many cases, community fishing

has proven to be a sustainable source of livelihood for the communities, as it enables them to use their natural resources in a responsible and efficient manner. However, the practice is not without its challenges. Overfishing, pollution and habitat destruction have all led to declining fish populations in many areas, making it difficult for communities to sustain their fishing practices. To address these challenges, the government and other stakeholders need to support the development of sustainable fishing practices and provide communities with the necessary resources and technology to improve their fishing yields. In addition, efforts should be made to create awareness among the public about the importance of preserving fish habitats and protecting fish populations.



Rabha tribal women wearing their traditional attire get ready for fishing with jakoi and khaloi.

References

Baruah D. 2017. Traditional community fishing practices of rural Kamrup of Assam. *Aquaculture Asia* 21(1):7–18.

Baruah D, Dutta A, Bhuyan A and Puthra P. 2018. Fishing gear and practices in flood waters of Assam. *Aquaculture Asia* 22(4):6–19.

Bordoloi BN, Sharma Thakur GC and Saikia MC. 1987. Tribes of Assam (Part-I). Guwahati, Assam: Tribal Research Institute.

[CIFRI] Central Inland Fisheries Research Institute. 2000. Ecology and fisheries of beels in Assam. Bulletin No. 104. Barrackpore, West Bengal: CIFRI.

Froese R and Pauly D, eds. 2022. FishBase. Accessed June 2022. www.fishbase.org

[NFDB] National Fisheries Development Board. 2021. Fishing Festival of India. National Fisheries Development Board, Ministry of Fisheries, Animal Husbandry & Dairying, Government of India.

Ovung EY, Kithan LM, Brearley FQ and Tripathi SK. 2022. Indigenous community fishing practices in Nagaland, eastern Indian Himalayas. *Sustainability* 14:7049.

[SAC] Space Applications Centre. 2011. National Wetland Atlas: North-Eastern States. Ahmedabad, India: SAC (ISRO).

SI	Order	Family	Common name	Local name	Scientific name
1	Cypriniformes	Cyprinidae	Large razorbelly minnow	Selkona	<i>Salmostoma bacaila</i>
2			Flying barb	Dorikona	<i>Esomus danrica</i>
3			Mola carplet	Mola	<i>Amblypharyngodon mola</i>
4			Pool barb	Puthi	<i>Puntius sophore</i>
5			Rosy barb	Puthi	<i>Pethia conchonius</i>
6			Ticto barb	Puthi	<i>Pethia ticto</i>
7			Bata	Bhangon	<i>Labeo bata</i>
8			Reba carp	Lachim	<i>Cirrhinus reba</i>
9				Cobitidae	Guntea loach
10	Siluriformes	Bagridae	Tengara catfish	Singora	<i>Mystus tengara</i>
11			Striped dwarf catfish	Singora	<i>Mystus vittatus</i>
12		Siluridae	Pabo catfish	Pavo	<i>Ompok pabo</i>
13		Claridae	Magur	Magur	<i>Clarias magur</i>
14		Heteropneustidae	Stinging catfish	Singhi	<i>Heteropneustes fossilis</i>
15	Beloniformes	Belonidae	Freshwater garfish	Kokila	<i>Xenentodon cancila</i>
16	Synbranchiformes	Mastacembelidae	One-stripe spiny eel	Tura	<i>Macrognathus aral</i>
17			Zigzag eel	Bami	<i>Mastacembelus armatus</i>
18	Ovalentaria	Ambassidae	Elongate glass-perchlet	Chanda	<i>Chanda nama</i>
19	Anabantiformes	Nandidae	Gangetic leaffish	Gadgadi	<i>Nandus nandus</i>
20		Badidae	Badis	Dum vessel	<i>Badis badis</i>
21		Anabantidae	Climbing perch	Kawoi	<i>Anabas testudineus</i>
22		Osphronemidae	Banded gourami	Kholihona	<i>Trichogaster fasciata</i>
23			Dwarf gourami	Vacheli	<i>Trichogaster lalius</i>
24		Channidae	Bothua	Chengeli	<i>Channa gachua</i>
25	Gobiiformes	Gobiidae	Tank goby	Patimutura	<i>Glossogobius giuris</i>
26	Perciformes	Channidae	Spotted snakehead	Goroi	<i>Channa punctata</i>
27	Tatradontiformes	Tetradontidae	Ocellated pufferfish	Gongatop	<i>Leiodon cutcutia</i>
28	Osteoglossiformes	Notopteridae	Bronze featherback	Kanduli	<i>Notopterus notopterus</i>
29			Clown knifefish	Chital	<i>Chitala chitala</i>
30	Cypriniformes	Cyprinidae	Grass carp	Grass carp	<i>Ctenopharyngodon idella</i>
31			Common carp	Common carp	<i>Cyprinus carpio</i>
32			Mrigal	Mirika	<i>Cirrhinus mrigala</i>
33			Catla	Bhokua/ Bahu	<i>Gibelion catla</i>
34			Kuria labeo	Kurhi	<i>Labeo gonius</i>
35			Orangefin labeo	Kola Rou/ Mali	<i>Labeo calbasu</i>
36			Rohu	Rou	<i>Labeo rohita</i>
37	Siluriformes	Siluridae	Wallago	Barali	<i>Wallago attu</i>
38	Synbranchiformes	Synbranchidae	Cuchia	Kuchia	<i>Monopterusuchia</i>
39	Anabantiformes	Channidae	Striped snakehead	Shoal	<i>Channa striata</i>

Note: Taxonomic classification was followed as per FishBase (Froese and Pauly 2022).

Table 1. Fish species recorded during community fishing at the Barjong beel (1–26 are SIS).



About WorldFish

WorldFish is an international, not-for-profit research organization that works to reduce hunger and poverty by improving aquatic food systems, including fisheries and aquaculture. It collaborates with numerous international, regional and national partners to deliver transformational impacts to millions of people who depend on fish for food, nutrition and income in the developing world.

The WorldFish headquarters is in Penang, Malaysia, with regional offices across Africa, Asia and the Pacific. The organization is a member of CGIAR, the world's largest research partnership for a food secure future dedicated to reducing poverty, enhancing food and nutrition security and improving natural resources.

For more information, please visit www.worldfishcenter.org