Commonly known as Pallo Macchi the famous prized Palla fish (Tenualosa ilisha) is hailed as one of the most valued fish in Sindh Province of Pakistan. Historically it is an important delicacy as the traditional food of the dwellers of the Indus River. The fish is anadromous in nature which means that it lives most of its life as a marine species but its olfactory senses instinctively urge it to swim upstream for hundreds of miles in the Indus River from the Arabian Sea. Here it breeds and the fish fry and adults return back to the Arabian Sea. This migration takes places year after year.

The production of Palla fish in Sindh has declined to a significant extent. This phenomenon is attributed to the reduced flow of Indus River resulting in the restricted upstream migration of Palla fish for breeding. Morever, physical barriers in the form of barrages and dams have blocked the migratory passage. Though fish ladders (structures on or around artificial barriers such as dams or barrages) can help fish migrate but they are very rarely maintained along the Indus River and hence the stocks of Palla have been depleted at an alarming pace during the last 15 years. Once claimed as comprising up to seventy percent of fish catch it now hardly constitutes 15% of the total catch in the area.

In Indus, Palla is found from the last week of January up to the middle of October, peak period being May to June.

Kingdom	Animalia
Phylum	Chordata
Class	Actinopterygii
Order	Clupeiformes
Family	Clupeidae
Genus	Tenualosa
Species	illisha
Scientific Name	Tenualosa ilisha

In the past, Palla fish has been reported to migrate as far as Multan (Punjab) before the construction of barrages on the Indus River but nowadays it only reaches up to Kotri Barrage (Ghulam Muhammad Barrage).



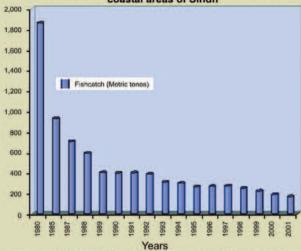
Palla was a staple food fish for many deltaic people in the past







Annual catch of the Palla fish, Tenualosa ilisha in coastal areas of Sindh

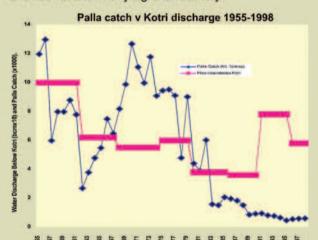


(Source: Fisheries Directorate Sindh and Development Statistics of Sindh areas, Sindh, Pakistan.)

The construction of various barrages on the Indus River has blocked the passage of the fish to its breeding grounds. Interestingly, even though the numbers in catch have declined dramatically (>90%), catch data from Food and Agriculture Organization report little change in the last 25-30 years and it appears that the damage to fish migration was done some time ago. However, very little is known about the population of Palla in Pakistan unlike Bangladesh and India, where a lot of research has been carried out but still scientists have very little information about the population and breeding grounds. For example, some of the individuals of Palla in the Ganges are resident throughout the year and never reach the sea.

Calls for fish ladders to be constructed to allow the fish to regain its spawning grounds upstream have largely gone unnoticed in Pakistan. The construction of barrages on Indus River and decline in Indus water flow in Deltaic region has resulted in increased depletion of this otherwise prized fish species.

The figure here shows the catch of Pallas from 1955 to 1998 compared to water discharge from the Kotri Barrage and there appears to be little correlation between discharges and fish catches. If the catch data is anywhere near a true reflection of the truth, then it may well be that the decline in the catch may also have other causes where over-fishing may be another cause overlooked in the past. What is clear though is that the catch is now very low for the last 20 years and has not shown any signs of recovery.



Source: FAO(Palla catch), WAPDA (water discharge from Kotri Barrage)

Palla was once reported as the single largest species of fish accounting for 70% of the total catch in the past. But now it barely constitutes 15 percent of the total catch.

Indus for All Programme, WWF - Pakistan Programme Management Unit (PMU)

606, 607 Fortune Centre, Block-6 P.E.C.H.S, Shahra-e-Faisal, Karachi. Tel: 021-4544791-92, Fax: 021-4544790 www.foreverindus.org

Programme Implementation Units (PIU)

Chotiari Wetlands Complex

House # 129/2, Housing Society, Near Government Boys High School, Nawabshah Road, District Sanghar, Sindh. Tel: 0235-542837, Fax: 0235-542791

Keenjhar Lake House # B/112, Hashimabad Society Makli, District Thatta, Sindh. Tel: 0298-772318, 772319, 610426

Keti Bunder

Keti Bunder Town, P.O. Keti Bunder via P.O. Mirpur Sakro, District Thatta, Sindh. Tel: 0298-607685, 620291

Pai Forest

House # A-3, M.U.C.E.T Employees Co-operative Housing Society, District Nawabshah, Sindh. Tel: 0244-366364, Fax: 0244-282496 Designed by Nida Sham