

Chapter 1 : theinnatdunvilla.com - Photo Gallery - Lake Tanganyika Cichlids

*Lake Tanganyika Cichlids (Aquaguide S.) [Peter Bredell, Frank Schneidewind] on theinnatdunvilla.com *FREE* shipping on qualifying offers. Book by Schneidewind, Frank.*

Two species of "Tanganyika sardine" *Limnothrissa miodon* and *Stolothrissa tanganicae* form the largest biomass of fish in this zone, and they are important prey for the forktail lates *Lates microlepis* and sleek lates *L.* The cichlid pick up the eggs in their mouth as if they were their own. Once the catfish eggs hatch the young eat the cichlid eggs. A total of 83 freshwater snail species 65 endemic and 11 bivalve species 8 endemic are known from the lake. *Grandidieria burtoni*, *Pseudospatha tanganyicensis* and *Brazzaea anceyi*. They are referred to as thalassoids, which can be translated to "marine-like". Their appearance is now believed to be the result of the highly diverse habitats in Lake Tanganyika and evolutionary pressure from snail-eating fish and, in particular, *Platythelphusa* crabs. The lake is also vital to the estimated 10 million people living in the greater basin. Major commercial fishing began in the mids and has, together with global warming limiting the habitat of temperature sensitive species, had a heavy impact on the fish populations, causing significant declines. The port town of Kigoma is the railhead for the railway from Dar es Salaam in Tanzania. The port town of Kalemie previously named Albertville is the railhead for the D. The port town of Mpulungu is a proposed railhead for Zambia. It is thought that early *Homo Sapiens* was making an impact on the region already during the stone age. It is believed they would have caused megafaunal extinctions. Most of them included using a lantern as a lure for fish that are attracted to light. There were three basic forms. One called Lusenga which is a wide net used by one person from a canoe. The second one is using a lift net. This was done by dropping a net deep below the boat using two parallel canoes and then simultaneously pulling it up. The third is called Chiromila which consisted of three canoes. One canoe was stationary with a lantern while another canoe holds one end of the net and the other circles the stationary one to meet up with the net. They located it while searching for the source of the Nile River. Speke continued and found the actual source, Lake Victoria. Later David Livingstone passed by the lake. The ship was used both to ferry cargo and personnel across the lake, and as a base from which to launch surprise attacks on Allied troops. The two boats waited until December, and mounted a surprise attack on the Germans, with the capture of the gunboat Kingani. It was from there, in June, that they launched a bombing raid on German positions in and around Kigoma. However, the war on land was progressing, largely to the advantage of the Allies, who cut off the railway link in July and threatened to isolate Kigoma completely. This led the German commander, Gustav Zimmer, to abandon the town and head south. In order to avoid his prize ship falling into Allied hands, Zimmer scuttled the vessel on July 26. The vessel was later raised in and renamed MV Liemba see transport. Che Guevara In Argentinian revolutionary Che Guevara used the western shores of Lake Tanganyika as a training camp for guerrilla forces in the Congo. From his camp, Che and his forces attempted to overthrow the government, but ended up pulling out in less than a year since the National Security Agency NSA had been monitoring him the entire time and aided government forces in ambushing his guerrillas. The initiative is attempting to monitor the resources and state of the lake, set common criteria for acceptable level of sediments, pollution, and water quality in general, and design and establish a lake basin management authority. This happens during the cooler months May to September. These nutrients that are in deep water are vital in maintaining the aquatic food web. The southerly winds are slowing down which limits the ability for the mixing of nutrients. This is correlating with less productivity in the lake.

Chapter 2 : Lake Tanganyika Cichlids

*Find helpful customer reviews and review ratings for Lake Tanganyika Cichlids (Aquaguide S.) at theinnatdunvilla.com
Read honest and unbiased product reviews from our users.*

Lake Tanganyika and its Diverse Cichlids By Craig Morfitt Lake Tanganyika According to data available in , Lake Tanganyika is the oldest lake in Africa and perhaps in the world, having been formed during the Miocene about 20 million years ago Brichard p. It was in one of these valleys that Lake Tanganyika was formed. The lake is about miles long and 50 miles wide at the most Konings p. With a surface area of 34, square kilometres, it is the seventh largest lake in the world. By virtue of its size, Lake Tanganyika enjoys remarkable stability with regard to temperature and chemical make-up. There is just under 5 degrees F difference between the surface and the bottom Loiselle p. With no significant temperature difference there is no driving force for the vertical currents that occur in most lakes and provide oxygenated water to the depths. Stratification has resulted with waters below feet being devoid of life-giving oxygen. All fish life is therefore confined to the upper layer. That said, the upper layer is extremely rich in fish life, particularly cichlids. What is a Cichlid? They are representatives of the largest group of fishes - the advanced bony fishes of the infra class Teleostei. The ancestors of cichlids evolved under marine conditions and then successfully invaded and colonised freshwater biotopes. As a result, they are usually quite salt-tolerant. Cichlids are highly intelligent fishes that tower above the generality of freshwater fishes when it comes to behavioural sophistication. Cichlids exhibit sophisticated parental care of their eggs and newly hatched fry. Many species also care for their fry when they become mobile. Cichlids have shown an amazing ability to adapt to different biotopes by utilising a wide range of food sources and exploiting particular trophic niches. Some cichlids have even colonised highly mineralised hot springs in the East African Rift Valleys. Belgian fish collector Pierre Brichard has said "Lake Tanganyika is by no means just another African Great Lake or just another inland sea. Nowhere else in Africa, and as far as I know in the world, can we find as large and as deep a lake whose lifespan encompasses so many millions of years of uninterrupted and gradual evolution. The succession of adaptations led to the increasingly specialised forms found today. Almost different species of cichlids have been described from Lake Tanganyika and more discoveries are being made each year. Large parts of the shores on Tanzanian and Zairean Congolese territories have not yet been explored in detail so the total is sure to rise Staeck p. Professor Max Poll believes that there are still undiscovered cichlids in the lake because it has not been fully explored. He points out that special fishing equipment is required to explore the immense lake bottom at depths about metres Finley p. Brichard expects that at least cichlid species will eventually be registered in the lake and believes that the bulk of the new ones will consist of highly specialised species with unusual adaptations p. What has led to this incredible diversity of cichlids? Why have Cichlids Diversified? All around the lake are rocky areas that are like islands, separated from each other by open sandy or grassy areas. The fishes living in the rocky areas are effectively isolated from those in adjacent areas because they are bound to the rocks for protection. Should they leave the rocky areas and venture into the open they would be at the mercy of the predators that roam the open waters. As a result, breeding populations are restricted to their own area and are free to go off in their own evolutionary direction, independent of what is going on in other parts of the lake. That said, the general evolutionary trends tend to be the same due to similar biological and physical pressures acting on the fishes Axelrod p. It is therefore not surprising that two rocky shores separated by yards of sand can yield very different groups of cichlids Somermeyer p. As the cichlids have evolved, they have done so to adapt to a specific niche in the lake. The fact that so many species can live together on a short stretch of slope can be explained by the number of ecological niches available to the fishes as well as the amount of food present. In this respect a rocky biotope in the lake is not very different from the coral reefs Brichard p. The evolution may have been to adapt to a habitat or to a food source. Axelrod reports that the tremendous success of cichlids in the lake has been attributed, to a large extent, to their ability to take advantage of all the different food sources available, from microscopic algae to fishes p. Professor Max Poll conducted the second major exploration of the lake between and For the first time he called attention to the

segregation and specialisation of species according to the type of biotope they were living on Finley p. The Lakes Varied Biotopes By examining the various biotopes around the lake, we can begin to see how and why the cichlids have evolved and specialised. Those biotopes are now described: The crashing waves in this biotope produce very high oxygen levels as the carbon dioxide is washed out rapidly. The so-called goby cichlids have adapted to this biotope in such a manner that it is the only place that they may be found. The rocky habitat free of sediment is characterised by medium to large boulders, from one foot to tens of feet in diameter. The coast usually drops at a steep angle and the rocks are laying on other rocks, not on sand. The lack of sediment permits a lush biocover to flourish. This algal mat provides nourishment to herbivorous species. Whilst this sediment rich biotope may still be covered with an algal layer it is poor in comparison with the upper layers. Sand is usually nearby and often covers part of the rocks. This biotope is inhabited by small cichlids that can find shelter between the rocks. Here the rocks, sized between pebbles and footballs, are on a sandy floor. Food is in its highest abundance in this biotope and it therefore harbours the most successful species. The inhabitants of this biotope tend to have a barred pattern on the sides which blends perfectly in the shallow water background. The pattern tends to confuse fish eating birds as the fishes move against the background of reflecting waves. They might be gregarious or solitary. They include wanderers and territorial fishes. Some build nests to raise their young whilst others incubate them in their mouths. Some feed on the algal mat whilst others feast on the tiny creatures on or within the mat. Some occupy the midwater area just off the slope in order to get first try at the incoming phytoplankton whilst others feed on the tiny crustaceans on the substrate. Some predators attack other fishes and swallow them whole but some rip diseased or weakened fish to pieces. Small particles of dust and sand continue to rain down the slope to the deep and any rocks at the lower levels are eventually covered with sand or silt. As a result, sandy bottoms ranging from the foot of rock strewn slopes to gently rolling plains prevail everywhere. The high calcium content of the water prevents the shells from dissolving slowly, as they would in neutral or acidic waters. The empty shells therefore accumulate in depressions in the lake floor. They are sometimes found in dense fields. Many species have accepted the snail shells as spawning sites and many take refuge in them. The best way for small fishes to live, feed and breed on barren, featureless floors is to bunch together. *Calochromis* and *Xenotilapia* species school together in the hundreds and have developed strong gregarious instincts. Some dive headlong into the sand and disappear when in danger. The shape and camouflage of these species are so good that it is difficult to spot a school of them from above. Additionally, they have developed extra sensory organs to warn them about predators and have specially angled teeth with which they can scoop up sand to get at the shrimp buried within. The bottom may include organic wastes like excrement or decaying organisms. Most of the mud, however, is brought in by the inflowing rivers. Whilst some of the plankton is eaten by cichlids, the majority is food for shrimp-like crustaceans. These crustaceans, along with insect larvae, worms and other invertebrates are the favoured food of many fishes. Large schools of fishes roam these waters. The density of these pelagic schools has been estimated at 2. The food chain in the pelagic waters begins with the phytoplankton that thrive in the light. Zooplankton feed on the phytoplankton and in turn are the main food for many cichlids in this biotope. Most of the zooplankton is consumed by enormous schools of non-cichlids and it is these schools that are the main prey of open water predator cichlids Konings p. This is much deeper than any river fish would be required to live and has demanded major adaptations of the cichlids that call it home. The cichlids had to adapt to the low oxygen and poor lighting that in most cases amounts to total darkness. One of these adaptations is the development of additional sensory organs that allow them to live in these conditions Brichard p. It is clear that cichlids have adapted to certain physical characteristics of their environment. They have also specialised in the type of food they eat. Feeding Diversity Pierre Brichard p. Insectivorous fishes live close to the waters edge feeding on insects and their aquatic larvae. Herbivorous rock-grazers feed mainly on the vegetal carpet of the biocover growing on the rocks. Carnivorous zoobiocover peckers specialise in picking crustaceans and probably insect larvae from the tiny crannies on the rock surface. Carnivorous zooplankton pickers live at ground level or in mid-water picking crustaceans as they hop by. Phytoplankton pickers feed mainly on the drifting vegetal organisms of the plankton in mid-water. Bivalve shell crushers feed on small bivalve molluscs. Aquatic plant browsers feed on the limited plants. Sand sifters scoop mouthfuls of sand with their

forward slanted teeth, sift it through the gills, and eat the crustaceans hidden in it. Diatom feeders feed on diatoms and shrimp developing on decaying organic matter on the deep floors. Skin, mucus and flesh are digested but the bony scale structure is not.

Chapter 3 : Lake Tanganyika and its Diverse Cichlids

The Cichlids of Lake Tanganyika The books shown below are listed on theinnatdunvilla.com You can click on the title or on the image of a book to go to the page at theinnatdunvilla.com, where that book is listed and discussed.

The largest genus of Lake Tanganyika cichlid is the *Tropheus* genus, though there are also numerous Goby Cichlids and cichlids from other genres including *Neolamprologus*, *Julidochromis*, *Cyprichromis*, and *Altolamprologus*. Though the details vary from one species to another, most Lake Tanganyika cichlids are aggressive fish that should be housed separately or as a breeding pair. It is sometimes possible to keep different types of Lake Tanganyika cichlid together in a very large tank as long as they are not conspecific. With more than species of cichlid living in Lake Tanganyika, these fish exhibit a wide variety of colors and patterns. Origins Lake Tanganyika is one of the African Great Lakes and it is the second largest body of water in the world as well as the second deepest. This lake is home to at least different species of cichlid as well as 75 other species. Color With more than species of cichlid living in Lake Tanganyika, these fish exhibit a wide variety of colors and patterns. Some of the colors you may see in these cichlids include red, yellow, blue, green, black, and brown. Many Lake Tanganyika cichlids exhibit splotches of color on the sides with or without dark vertical bars or white spotting. Maintenance and Care Because most Lake Tanganyika cichlids are endemic to the lake, they all have similar requirements in terms of water chemistry and tank conditions. The pH range for the lake is generally between 7. Like most African cichlids, Lake Tanganyika cichlids prefer a tank with sand substrate decorated with rocks and cave formations. If you are keeping multiple species together, be sure to include plenty of hiding places as well as tall decorations to break up sight lines and to divide the tank into territories. Feeding Lake Tanganyika cichlids are largely omnivorous so they will feed on a variety of foods including algae, plant matter, insects, and crustaceans in the wild. In the home aquarium these fish should be offered high-quality commercial flakes, pellets, and granules as well as fresh and frozen foods like earthworms, bring shrimp, and blood worms. Some species spawn over flat rocks or broad-leafed plants while others dig holes into the substrate or deposit their eggs in caves. Many Lake Tanganyika cichlids exhibit mouth brooding behavior as well, taking the fertilized eggs into their mouths to incubate until hatching. It is also common for these cichlids to exhibit parental care after hatching. Aquarium Varieties There are more than species of Lake Tanganyika cichlid which have been identified but some of the most popular species for the aquarium trade include the following: *Frontosa Cichlid* *Cyphotilapia frontosa*.

Chapter 4 : tanganyika cichlids | eBay

Searching for unique Live Cichlids? The Lake Tanganyika's are some of the most exotic cichlids! Find them in distinct colors & sizes at Quinn's Fins!

Report Broken Video Abyssinian guinea pig comes to check out camera, babies everywhere! The two larger guinea pigs are sisters, and have just given birth to 5 babies - 3 boys and 2 girls. These two great rift lakes formed millions of years ago. Along with these two great rift lakes a number of smaller lakes and ponds also formed. Lake Tanganyika is the second deepest lake in the world, reaching depths of feet m. Its depth contributes to its very stable and oxygen rich water. There is estimated to be about. The regions that cichlids inhabit include rocky areas, sandy areas, midwater areas, or they can be a combination of two or all three of these types. Tanganyika cichlids adapted, evolving with different feeding specializations to take advantage of each region, giving rise to so very much diversity with the family. Yet the cichlids were not alone in adapting to local conditions to feed. A great number of other fish also adapted. A great example is the upside down catfish Cuckoo Synodontis Synodontis multipunctatus, which takes the eggs of spawning cichlids into its own mouth, and mingles them with its eggs. Cichlid Types The extreme diversity of the cichlids from Lake Tanganyika exceeds the limits ordinarily found in a family of fishes. The environment of the lake is relatively stable which is conducive to specialization. As they adapted to numerous habitats within the great lake, they evolved toward different feeding specializations that modified their physical structures. Types of specialized feeding include crushing molluscs, sand-sifting to collect crustaceans and larvae, scraping algae from rocks or cropping aquatic plant matter, extracting gastropods from shells, snatching scales from other fishes, and extracting eggs, embryos and fry from the mouths of other cichlids. Within this great diversity there are also a couple record breakers. The smallest cichlid is *Nanochromis transvestitus* reaches 1. There are lots of Tanganyika cichlid species readily available for the average hobbyist, like those in the *Tropheus* genus. But many other unique Lake Tanganyika cichlids are quite expensive. Also a lot of the more unusual cichlids have special requirements to successfully keep them, so are not suitable for beginners. *Tropheus* Cichlids The popular *Tropheus* species, endemic to Lake Tanganyika, are widely distributed along the coastal fringes of the lake and have many geographic variations. Get a more in-depth look at the *Tropheus* Cichlids themselves:

Chapter 5 : Tanganyika Cichlid Fish For Sale From Mike's Rifts

The lake is a closed system so it is not surprising that almost all of the lake's cichlids are endemic (Somermeyer p.1). Almost different species of cichlids have been described from Lake Tanganyika and more discoveries are being made each year.

Anatomy and appearance[edit] Relationships within the Labrodei [1] Cichlids span a wide range of body sizes, from species as small as 2. As a group, cichlids exhibit a similar diversity of body shapes, ranging from strongly laterally compressed species such as *Altolamprologus* , *Pterophyllum* , and *Symphysodon* to species that are cylindrical and highly elongated such as *Julidochromis* , *Teleogramma* , *Teleocichla* , *Crenicichla* , and *Gobiocichla*. A complex set of muscles allows the upper and lower pharyngeal bones to be used as a second set of jaws for processing food, allowing a division of labor between the "true jaws" mandibles and the " pharyngeal jaws ". Cichlids are efficient and often highly specialized feeders that capture and process a very wide variety of food items. This is assumed to be one reason why they are so diverse. A comprehensive system of assigning species to monophyletic genera is still lacking, and there is not complete agreement on what genera should be recognized in this family. Other problems center upon the identity of the putative common ancestor for the Lake Victoria superflock, and the ancestral lineages of Tanganyikan cichlids. Comparisons [19] between a morphologically-based phylogeny [20] and analyses of gene loci [21] produce differences at the genus level. There remains a consensus that the Cichlidae as a family is monophyletic. However, this was complicated by the fact that in many cichlids, tooth shape changes with age, due to wear, and cannot be relied upon. Genome sequencing and other technologies transformed cichlid taxonomy. Originally from Africa, the species established feral populations in Australia. They are most diverse in Africa and South America. Madagascar has its own distinctive species *Katria* , *Oxylapia* , *Paratilapia* , *Paretroplus* , *Ptychochromis* , and *Ptychochromoides* , only distantly related to those on the African mainland. Europe , Australia, Antarctica , and North America north of the Rio Grande drainage have no native cichlids, although in Florida , Mexico, Japan and northern Australia, feral populations of cichlids have become established as exotics. Lake Abaeded in Eritrea encompasses the entire distribution of *D.* Africa-South America and India-Madagascar. Although the vast majority of Malagasy cichlids are entirely restricted to fresh water, *Ptychochromis grandidieri* and *Paretroplus polyactis* are commonly found in coastal brackish water and they are apparently salt tolerant, [40] [41] as is also the case for *Etroplus maculatus* and *E.* Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed. October

Feeding[edit] The bumblebee cichlid, *Pseudotropheus crabro* , is specialised in feeding on parasites from the catfish *Bagrus meridionalis*. *Petrochromis* and plants e. Small animals, particularly invertebrates , are only a minor part of their diets. Other cichlids are detritivores and eat organic material, called *Aufwuchs* ; among these species are the tilapiines of the genera *Oreochromis* , *Sarotherodon* , and *Tilapia*. Other cichlids are predatory and eat little or no plant matter. These include generalists that catch a variety of small animals, including other fishes and insect larvae e. *Pterophyllum* , as well as variety of specialists. *Trematocranus* is a specialized snail -eater, while *Pungu maclareni* feeds on sponges. A number of cichlids feed on other fish, either entirely or in part. *Crenicichla* species are stealth-predators that lunge from concealment at passing small fish, while *Rhamphochromis* species are open-water pursuit predators that chase down their prey. Its pharyngeal teeth teeth in the throat afford cichlids so many "niche" feeding strategies, because the jaws pick and hold food, while the pharyngeal teeth crush the prey. A substrate brooding female managuense cichlid, *Parachromis managuense* , guards a clutch of eggs in the aquarium. Cichlids have highly organized breeding activities. Communal parental care, where multiple monogamous pairs care for a mixed school of young have also been observed in multiple cichlid species, including *Amphilophus citrinellus* , *Etroplus suratensis* , and *Tilapia rendalli*. Parental care falls into one of four categories: Examples of open-brooding cichlids include *Pterophyllum* and *Symphysodon* species and *Anomalochromis thomasi*. Male and female parents usually engage in differing brooding roles. However, both sexes are able to perform the full range of parenting behaviours. Examples include *Pelvicachromis* spp. Frequently, this communication is based on body

movements, such as shaking and pelvic fin flicking. In addition, open- and cave-brooding parents assist in finding food resources for their fry. Multiple neotropical cichlid species perform leaf-turning and fin-digging behaviors.

Chapter 6 : cunninghamcichlids | Lake Tanganyika

Tropheus moorii Kaskawalae 'red rainbow' (juvenile) Tropheus moorii Kaskawalae 'red rainbow' Tropheus moorii Kaskawalae 'red rainbow' Photo by Spencer Jack.

Chapter 7 : Tanganyika Cichlids Facts, Tropheus, Frontosa, Gobys, Shelldwellers, more

Mike's Rifts is a specialist retailer and seller of Lake Malawi Cichlids and Lake Tanganyika Cichlids. We sell our Lake Malawi Cichlids and Lake Tanganyika Cichlids here in the UK and have been importing and selling these stunning and interesting African cichlid fish since

Chapter 8 : Buy Lake Tanganyika Cichlids at theinnatdunvilla.com, an African Cichlid Dealer.

African Cichlids for sale, mainly Tanganyikan Cichlids. Breeder of Zaire and Mpimbwe Frontosa, Enantiopus Kilesa, Nigriventris, Reganochromis Calliurus, Buescheri and more.

Chapter 9 : Cichlid - Wikipedia

Lake Tanganyika is an African Great theinnatdunvilla.com is the second oldest freshwater lake in the world, the second largest by volume, and the second deepest, in all cases after Lake Baikal in Siberia.