Boulenger and *C. taeniatus* Trewavas were examined and the stomachs and intestines were found to be full of minute fish scales, matching in size and structure those that densely coat the caudal fin in the Nyasan Tilapias and other Cichlid fishes. The dentition of *C. shiranus* is figured by Boulenger[3], who describes it as consisting of "extremely broad bands of innumerable minute club-shaped teeth with compressed oblique crowns". Trewavas[4] describes how the caudal fin of a *Tilapia* can be held between the upper and lower file-like tooth-bands of *Corematodus* and only pulled free at the cost of losing some scales.

During the course of work on a rocky shore of Lake Nyasa, one of us (G. F.) has recently collected five specimens of the little-known endemic Cichlid *Genyochromis mento* Trewavas. The guts of all five contained a number of relatively enormous fish scales, evidently derived from Cyprinid fishes of the genus *Labeo*. These scales were partly digested and apparently constitute the main food of the species, as in all cases they composed the bulk of the gut contents, sometimes to the exclusion of all else. In one specimen they were accompanied by a few slender fin-rays but by no other bones, and in another by a very small quantity of filamentous algae.

The dentition of *G. mento*, figured by Trewavas[5], is quite different from that of either *Corematodus* or *Plecodus*. The lower jaw is stout and prominent. Both jaws bear bands of teeth, of which all but those of the outer row are tricuspid; the outer are bicuspid. If the outer teeth of the lower jaw are inserted under the edge of a scale of *Labeo* the scale is easily removed.

Genyochromis mento is related to *Pseudotropheus*, *Petrotilapia* and *Cyathochromis*, the members of which graze on epiphytic and epilithic algae. Baerends and Baerends-van Roon[6] describe in *Tilapia natalensis* "a peculiar way of eating algae from substrates. It opens the mouth widely, presses it against the substrate and closes it while pressing". This is very similar to the account by Marlier and Leleup of the action of *Plecodus* in biting scales from its victims. One of us (P. H. G.) has noticed in a Cyprinid, *Labeo*, of Lake Victoria, behaviour that suggests a possible step by which a grazer on algae may become a scale eater. The *Labeo* was seen repeatedly to graze on the sessile rotifers growing on the flanks of a *Polypterus* kept with it in an aquarium. *Labeo* has toothless, sharp-edged jaws; but most Cichlid grazers on algae, including those related to *Genyochromis*, have bands of movable teeth. The teeth of *Genyochromis* are relatively firmly fixed. The same jaw action would shave the surface where the teeth are movable and remove scales where the teeth are fixed, especially with a prominent lower jaw. These rather scattered observations suggest how the scale-eating habit in *Genyochromis* might evolve from the grazing, with a change from movable to fixed teeth.

The three genera that have adopted the scale-eating habit are not very closely related within the family Cichlidae and have achieved the same end by dissimilar means.

Except that it seems to be related to *Perissodus*, a genus that also has a specialized dentition, the ancestry of *Plecodus* is obscure; but it does not necessarily follow that because some individuals will take a bait the species or its ancestor is predominantly voracious. Yet in this case scale-eating may be a modified predation, as it almost certainly is in *Corematodus*.

The work on *Genyochromis* is part of a study now in progress of the ecology of some littoral zone fishes in Lake Nyasa.

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Permanent Preparations of Nematodes

While working on the micro-fauna of Whitstable, I found that mounting media containing lactic acid were unsuitable for making permanent preparations of nematodes; they cloud in this medium on keeping.

An attempt was therefore made to prepare mountants based on creosote, which is the outstanding clearing agent for these animals. Of these mountants the most successful is a solution of 'Perspex' in creosote, although solutions of methyl cellulose and ethyl cellulose in this solvent were also valuable.

The mountant is prepared by heating creosote on a water-bath and adding 'Perspex' powder until a solution of the required viscosity is obtained.

The method of mounting nematodes in this medium is as follows: extend, kill and fix in hot 70 per cent alcohol (alternatively, extend and kill by warming up in sea water; fix in formol–acetic mixture); wash in 70 per cent alcohol; drain; clear in creosote; mount in creosote/'Perspex' mountant.

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Adaptability of Wheat Varieties to Acid Soils

It is common experience that certain varieties of wheat can tolerate a considerable degree of acidity in soils, while other varieties, although botanically similar, are very sensitive to this condition. As work in recent years has shown that the soil acidity complex can be resolved into a number of separate factors[1], it was decided to investigate the importance of two of these factors—aluminium and manganese toxicity—in relation to the acidity tolerance of wheat varieties.

Four varieties, known to show a differential response towards soil acidity, were selected for special study. These were grown in sand culture in the open, the general technique being similar to that of Hewitt[1]. The varieties were: (1) Atle, which is extremely sensitive, (2) Karn II, which is moderately sensitive, (3) Progress, which is moderately tolerant, and (4) April Red, which is comparatively immune, to soil