

Notes.

The Editor desires to point out that the pages of the Journal are open for the inclusion of short notes dealing with analytical practice and kindred matters. Such notes are submitted to the Publication Committee in the usual manner.

TWO UNCOMMON ANIMAL FATS.

THE author recently had the opportunity of personally obtaining samples of the fat of the Ceylon bear and of the cabaragoya. Lewkowitsch does not give an analysis of either of these fats, and there are few records of the examination of the fat of any reptile.

The Ceylon bear is *Melursus ursinus*; it has black shaggy fur, and weighs up to 200 pounds: Its food consists of the larvæ of ants, grubs and beetles of all kinds, and it is very fond of honey; in the dry season it feeds largely on jungle fruits. The fat was obtained from two bears, one a medium-sized female, and the other a large male. It was separated from the tissue by boiling with water, and was filtered and dried at 105° C. It was brown in colour, and, on standing, deposited about 30 per cent. of stearine.

The cabaragoya, *Hydrosaurus salvator* (Laur.) is a large species of iguana; the specimen from which the fat was obtained was between 5 and 6 feet long. It lives in marshy districts, and feeds on small insects, and on crabs which infest the rice fields; it is often the only scavenger of a native village. Emerson Tennent states that the Singhalese believe that the fat, externally applied, is a cure for cutaneous disorders, but that taken inwardly it is poisonous. No poisonous effect, however, was observed in the case of a frog which was given a dose by the mouth. The fresh fat was boiled with salt water, washed with hot water, filtered and dried at 105° C. On cooling to 30° C. it set to a yellow solid fat.

Analysis of these fats gave the following results:

	Specific gravity at 15·5	Butyro-refractometer reading at 40°C.	Acid value	Saponification value	Iodine value (Wijs)	Unsaponifiable matter Per Cent.
Bear 1	0·9146	48·2	2·31	196·7	56·7	0·69
Bear 2	—	46·2	—	197·2	60·7	—
Cabaragoya	0·9142	49·7	2·19	196·0	63·4	0·84

MIXED FATTY ACIDS.

	Solidifying point	Butyro-refractometer reading at 40°C.	Neutralisation value	Iodine value (Wijs)
Bear 1	37·7° C.	35·8	207·4	55·4
Cabaragoya	38·0° C.	40·7	207·9	60·1

The cabaragoya being a reptile and therefore cold-blooded, the fat might have been expected to resemble the fish oils rather than the animal fats. An examination of the figures, however, shows that this is not the case.

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AN ADULTERANT OF LIQUORICE PASTE.

THE manufacture of liquorice paste is an important Sicilian industry, and in Catania and Messina there are a number of factories engaged in its production.

From time to time various forms of adulteration have been noted, and recently, perhaps, the most frequently practised has been the addition of extract of *Carlina gummifera*, a variety of the *Carlina acaulis* found in considerable quantities in Sicily, and known in the dialect as *Masticogna*.

This root contains no starch, but is rich in inulin, and gives some 25 to 30 per cent. of an extract which, when concentrated, resembles liquorice paste in consistence and appearance.

An extract of this sort made in the laboratory was found to contain, after hydrolysis, as much as 60 per cent. of reducing sugars; hence, since in normal Sicilian liquorice paste the total quantity of sugars is generally from 8 to 12 per cent., an admixture of masticogna extract gives a product in which the percentage of sugar will be unduly high, while the starch and glycyrrhizin will be notably diminished.

Similar effects are produced by other vegetable extracts which have been used for the purposes of adulteration, but the presence of even moderate amounts of masticogna can be recognised by the microscopical examination of the insoluble residue.

The masticogna root contains a considerable quantity of calcium oxalate in crystals of very small dimensions and of a characteristic form, quite different from anything found in liquorice, and this permits of their ready identification.

The accompanying photomicrograph shows the appearance of these crystals, magnified 300 diameters, and their detection in the residue of a sample of liquorice paste is a clear indication of adulteration with masticogna extract.

It is hoped to give, at a later date, the results of a more complete examination of this substance.

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