

N'-Methylnicotinuric acid betaine could not be traced in the ammonium sulphate solvent system. This may be due to the removal of glycine with ammonium sulphate from the  $\beta$  side-chain, thus leaving a carboxylic group which would not give a fluorescent condensation compound with methyl ethyl ketone and ammonia<sup>4</sup>.

Further work is in progress to apply these procedures to biological materials.

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<sup>1</sup> Leifer, E., Langham, W. H., Nye, J. F., and Mitchell, H. K., *J. Biol. Chem.*, **184**, 589 (1950).

<sup>2</sup> Huebner, F. H., *Nature*, **187**, 119 (1951).

<sup>3</sup> König, W., *J. prakt. Chem.*, **69**, 105 (1904).

<sup>4</sup> Carpenter, K. J., and Kodicek, E., *Biochem. J.*, **46**, 421 (1950).

<sup>5</sup> Wang, Y. L., and Kodicek, E., *Biochem. J.*, **37**, 530 (1943).

<sup>6</sup> Chaudhuri, D. K., and Kodicek, E., *Nature*, **165**, 1022 (1950).

<sup>7</sup> Haynes, L. J., and Todd, A. R., *J. Chem. Soc.*, **303** (1950).

### New Lateral Line Sensory Organs in *Xenopus laevis* Daudin

DURING an investigation of a trematode infestation in *Xenopus laevis* a median ventral row of 'lateral' sensory organs was observed, which has not previously been described<sup>1</sup>. The observation was due to the nature of the infestation, and Fig. 1 is a photograph of a parasitized adult female toad. The parasites (*Strigeid metacercariae*) encyst in all layers of the dermis beneath the lateral sense organs, and the position of these is emphasized by numerous large melanophores close to the cysts, while the rest of the skin remains paler than usual.

The median ventral row runs forward from the junction of the two ventral rows just anterior to the anus, and consists of three to six 'plaques'. It is an anterior continuation of the row that joins the anus to the lateral ventral rows, which Paterson<sup>2</sup> suggests are derived from the paired rows on the ventral fin of



Fig. 1. *Xenopus laevis* D. Adult female with metacercarial infestation of the lateral line system. The melanosis provoked by the parasites discloses the presence of a hitherto unsuspected median ventral line

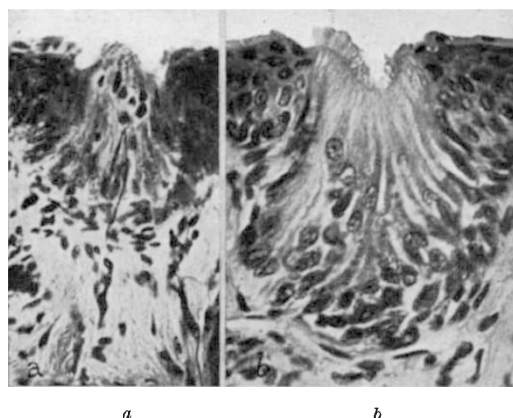


Fig. 2. (a) Sensory epidermal bud from the median ventral 'lateral' line of *Xenopus laevis* D. Some nerve fibres, supplying the organ, are visible.  $\times 180$ . Holmes silver impregnation. (b) Sensory epidermal bud from the upper lateral line of *Xenopus laevis*.  $\times 270$ . Masson's trichrome. Note the presence of the central depression on the surface which is absent in (a)

the tadpole. The median ventral row can sometimes be seen in normal animals, but is very inconspicuous. Its presence in these has been confirmed histologically (Fig. 2).

The median ventral row differs from the other rows in that the plaques are short (less than 2 mm.) and are not raised above the surrounding skin; tactile organs, which usually alternate with the lateral line neuromasts along the plaque, are often absent, and the latter are smaller than usual, scarcely extending down into the dermis. The innervation appears normal.

Fuller accounts of these observations, of the infestation and of an investigation into the electrophysiology of the lateral sensory organs of *Xenopus* by one of us (R. W. M.), will be published elsewhere.

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### The So-called Chromosome-Races of *Cardamine pratensis* and *Nasturtium officinale*

IN his recent article on "Plant Chromosome-Races and their Ecology in Great Britain"<sup>1</sup>, Dr. G. Haskell devotes a paragraph each to lady's smock (*Cardamine pratensis*) and to watercress (*Nasturtium officinale* agg.). So far as *Cardamine pratensis* is concerned, he omits to mention the work of Hussein<sup>2,3</sup>, who has made by far the largest study of the distribution of the two chromosome-races of this plant in Great Britain. Haskell states that in Great Britain, as in Sweden, the form with the lower chromosome number ( $2n = 30$ ) is characteristic of drier conditions than the form with the higher chromosome number ( $2n = 56$ ). This was found by Hussein, who says: "The ecological difference found by Lövkvist holds good in most of the cases recorded; for example, Prof. R. D'O. Good, who kindly provided material