
B I B L I O G R A P H Y

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of the nature of mucosubstances present in different cellular sites in alimentary tract from esophagus to large intestine of the frog E.systema in both the sexes, and to characterise them histochemically recent and well established histochemical techniques were employed. More than twenty different techniques involving PAS reactivity, modifications in PAS reactivity following diastase digestion and phenylhydrazine pretreatment, alcianophilia at different pH levels, colloidal iron (C.I.) reactivity, aldehyde fuchsin staining, sequential staining techniques such as AB pH 1.0 - PAS, AB pH 2.5 - PAS, C.I.- PAS, AF-AB pH 2.5, metachromasia at various pH levels, critical electrolyte concentration, methylation, saponification, acid hydrolysis, enzyme digestions such as hyaluronidase degestion, neuraminidase digestion and pepsin digestion have been employed. Such histochemical techniques have an advantage over biochemical techniques in the fact that, though the latter techniques give reliable data on the quantitative presence, they are not of much use in illustrating the tissue and cellular localization. From this point the histochemical techniques are better. In the present investigation, the staining timings were kept constant throughout the work, and differences, if any, in the intensity of staining were taken as reflections of differences in the concentrations of the different types of mucosubstances.

c) Critical evaluation of the observations

It was decided to analyze critically the results obtained in the present investigation on alimentary tract of E.systema in relation to: