- 1. Englmann, F., The physiology of insect reproduction, Pergamon Press, Oxford. 1970.
- 2. Slama, K., Romanuk, M. and Sorm, F., Insect hormones and bioanalogues, Springer Verlag, Wein, New York. 1974.
- 3. Odhiambo, T. R., Trans. R. Ent. Soc. London, 1966, 118, 393.
- 4. Blaine, W. D. and Dixon, S. E., Can. Entomol., 1973 105, 1275.
- 5. Tobe, S. S. and Pratt, G. E., Life Sci., 1975, 17, 417.
- 6. Ramalingam, S. and Craig, G. B., Can. Ent., 1977, 109, 897.
- 7. Scharrer, B., Endocrinology, 1946, 38, 46.

## SCANNING ELECTRON MICROSCOPIC STUDIES ON THE ULTRASTRUCTURE OF THE EGGS OF TAENIIDS OF DOGS

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INTESTINAL taeniasis among dogs in Madras, India, is caused mainly by cestodes belonging to three genera viz *Echinococcus*, *Multiceps* and *Taenia*. Among these, Echinococcosis is of great zoonotic importance. The importance of hydatidosis attains much significance in the context of the present-day socio-cultural impact of dog-man relationship. Naturally, the eggs of these three genera have to be differentiated. Since light microscopy is not very useful in this task, scanning electron microscopy (SEM) was attempted with encouraging results.

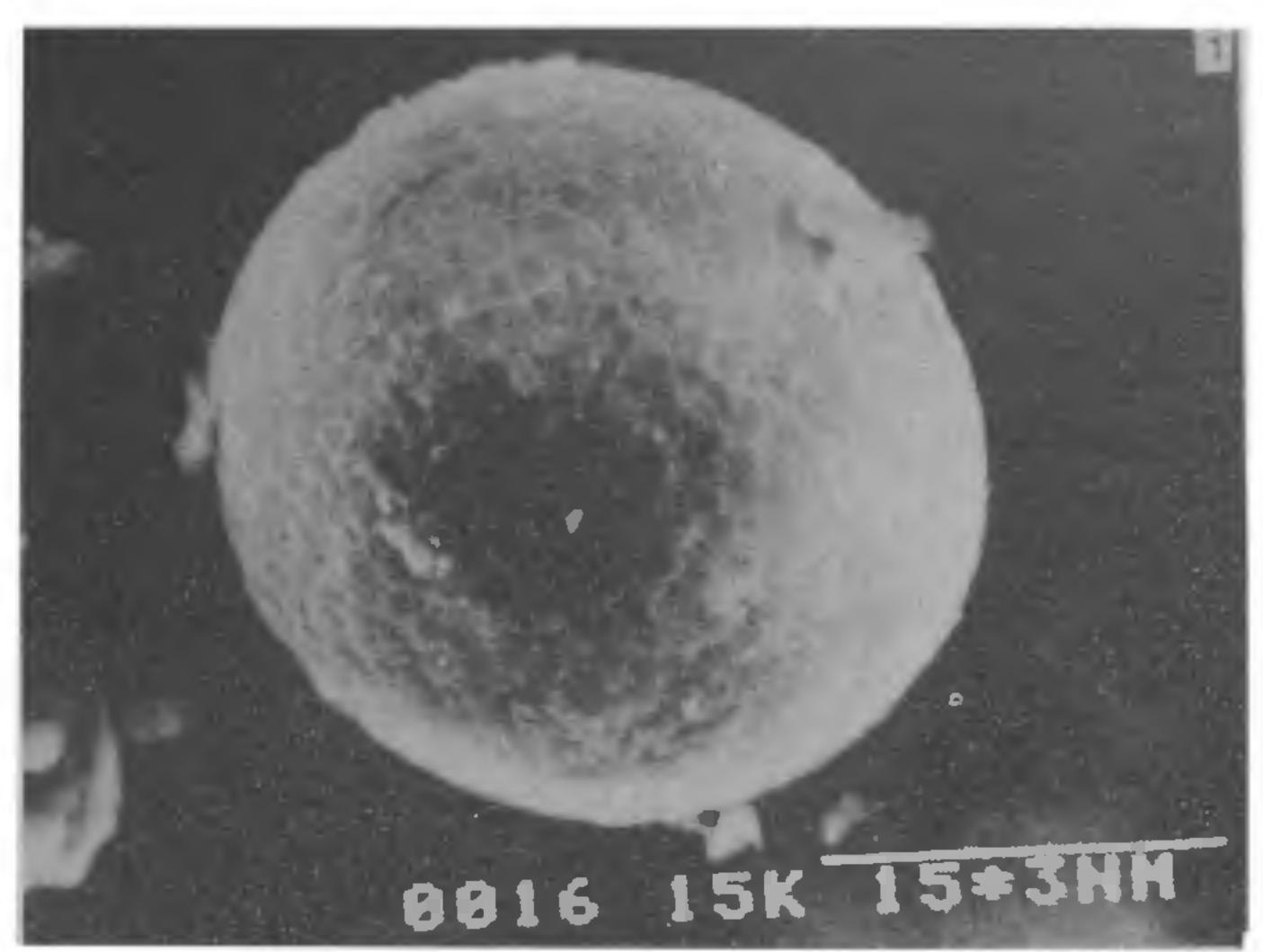
The eggs of *E. granulosus*, *M. multiceps* and *T. hydatigena* were obtained completely dry and transferred to the stub. After gold spraying, they were examined under SEM, (Type S-415 A, Hitachi) to differentiate them at the ultrastructural level.

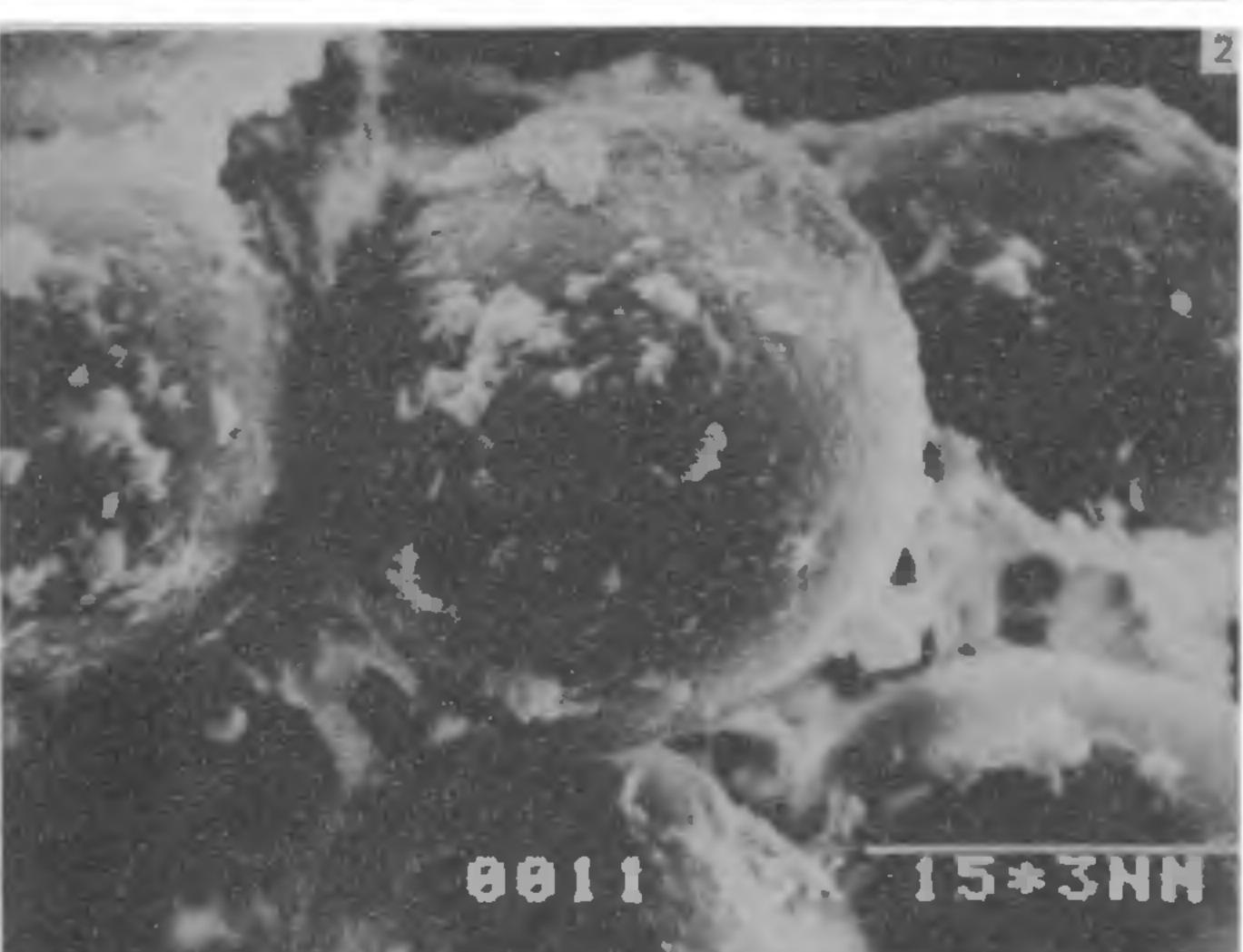
The shell of the egg of *E. granulosus* showed ornamentation in the form of raised disc-like projections on its outer surface (figure 1). The inner surface of the egg had corresponding depressions.

The egg shell of M. multiceps appeared rough on the outer surface with closely spaced small depressions (figure 2).

The egg of *T. hydatigena* had a smooth surface (figure 3) with fine depressions spaced irregularly.

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Figures 1–3. ( $\times$  15000). Eggs of 1. E. granulosus. 2. M. multiceps and 3. T. hydatigena.

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