to remove from the leaf surface after drying. A simple and quick technique, by which one sample can be taken in 2–3 min, is described below.

i) Fevicol mix is gently applied (figure 1) on the leaf surface over an area of 1.5 to 2 cm^2, and is allowed to dry for 1–2 min.
ii) The dry Fevicol is removed carefully with a pin till a fine film is separated from the leaf.
iii) The fine film is removed and immediately placed on a slide.
iv) The Fevicol film, which has an impression of the leaf surface, is cut into pieces of suitable size using a sharp razor. The pieces are properly arranged and pressed on the slide using another plane slide.
v) The slide is ready for immediate microscopic observation or can be stored for an extended period. On one slide 2, 3 or 4 samples can be mounted according to convenience.

Using this technique a large number of plants in a segregating population can be screened. Leaves or portions of leaves are not separated from the plant and there is no damage to the plant. The stomata and epithelial cells can be easily observed (figure 2) and counted for monocots and dicots (simple or compound leaves/grasses, fleshy leaves). Slides prepared by this method have been preserved for more than a year.

11 July 1988; Revised 7 September 1988

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NEW TECHNIQUE TO CULTURE *NEOVOSSIA INDICA* ON YEAST POTATO DEXTROSE AGAR

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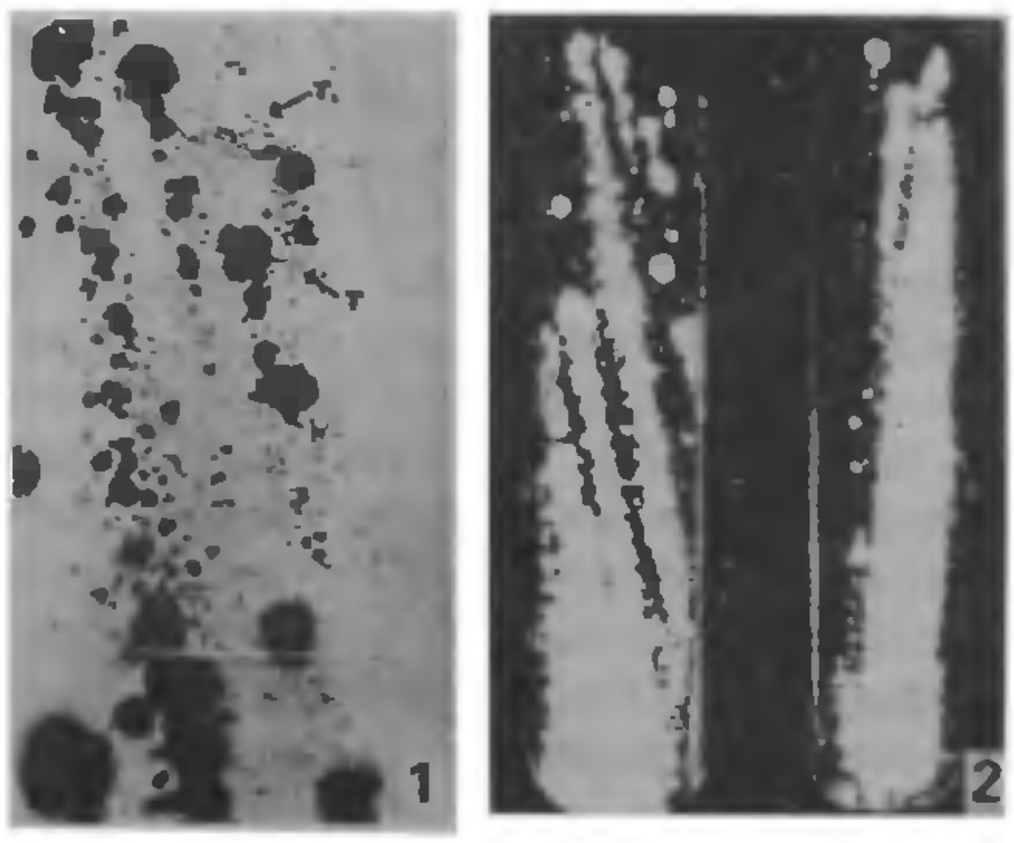
CULTURES of *Neovossia indica* (Mitra) Mundkar have been obtained by various workers[1–4] by inducing teliospores to germinate in water or in yeast potato dextrose broth medium amended with soil extract. The floating colonies produced in 18–20 days at 20°C are then transferred to yeast potato dextrose agar (YPDA) slants and subcultured by placing a small growing bit from the liquid culture[5]. Sporidial cultures were then produced in a week's time. We have been able to culture the pathogen by directly inoculating the YPDA slants with dry teliospores (figures 1 and 2). Well-formed sporidial colonies of allantoid sporidia were obtained in three weeks at 20°C in all the slants inoculated. It is suggested that sporidial cultures may be obtained by direct dusting of teliospores on YPDA slants, as it is a less time-consuming procedure and requires no subculturing for the production of allantoid sporidia. This is contrary to the earlier belief that free floating of teliospores on liquid substrate is essential for teliospores to germinate and grow.



Figures 1 and 2. **1.** Teliospores on the surface of YPDA slants. **2.** Colonies grown from teliospores.

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OCCURRENCE OF *SABELLARIA SIMPLEX* DAY COLONIES IN RATNAGIRI AND OBSERVATIONS ON TUBE BUILDING BEHAVIOUR IN CAPTIVITY

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THE tube building behaviour of *Sabellaria alveolata* (Linne.) was studied earlier[1–6]. While studying the polychaetous annelid fauna of Ratnagiri (west coast of India) the family Sabellariidae was found to be represented by three species, viz. *Sabellaria spinulosa* Leuckart, *Sabellaria chandraae* de Silva and *Sabellaria simplex* Day (Gaikwad[7]). The specimens of *S. spinulosa* were collected in isolated condition on dead oyster shells, whereas *S. chandraae* and *S. simplex* were found in colonial form.

Huge, massive honey comb colonies of *S. simplex* were observed near the old fishing jetty of Mirkarwada intertidal locality of Ratnagiri. The colonies were observed on rocks, jetty pillars and in the crevices of adjoining stones of anti-erosion sea walls (figures 1 and 2). They were found attached to the rock along the whole length. The height of the colony varied from 20 to 31.5 cm. The colony was made of many individual tubes clumped together in an orderly manner (figure 3). An individual tube was about 14.6 cm in length and 1–1.5 mm in diameter. The tube was open at both ends but appeared to have a distinct oral and aboral end. The oral end was slightly bent and hooded (figure 4).

For observations a small portion of a colony was carefully removed and brought to the laboratory, washed thoroughly with seawater and kept in a 25 l aquarium tank filled with well-aerated seawater. The worms were separated by breaking the sandy tubes. Some worms were kept along with tubes covering half of the body and the remaining without tubes. The worm with body covered partly by the tube was kept in a bowl with well-aerated seawater and was provided with sand from the natural locality where the colony was found.

As soon as the sand was provided the worm immediately started constructing the tube. The worm collected the sand particles using oral tentacles, rolling the particles towards the mouth. Five to six fine sand and shell fragments were moved at a time by tentacles towards oral lobes. When the sand particles reached the oral lobes, these particles were again rolled, to make them sticky for fixing it to the tube, and moved ventrally towards the base of the golden paleae. Then these particles were lifted up for fixing it to the tube, simultaneously the worm retracted inside the tube and uniformly pasted to the old tube by the movement of the worm body through 360°. The particles of sand were probably cemented together by means of some adhesive secretion as is done by *Platynereis dumerilli*[8], and *Polydora ciliata*[9].

The type of repair of the tubes varied. Some worms built a tube at right angles to the old one. However, some built in a zig-zag fashion. The rate of addition to the old tube was 27 mm within 24 h. If microplankton or *Chlorella* sp. was provided as food, the rate of tube building increased to 34 mm in 24 h. It was observed that the feeding activity simultaneously continued along with the tube building activity.

If a healthy worm was removed from the tube and kept on sandy substratum (from the same locality) it immediately started building the tube. A support, like rock for instance, enhanced the tube building and 40 mm tube was found to have been built in 24 h. If two or more worms were placed together they built separate tubes initially but later on moved towards each other and formed a compact mass, a beginning of the colony.

The worms survived in laboratory for about 12 months. The naked worm could be kept alive, if proper food like microplankton is provided up to 15 to 20 days, but it was found more prone to infection by ciliates particularly at caudal end. A thin mucilagenous tube was found to be covering the worm but its protective nature was obviously limited.

The author thanks late Dr M. R. Ranade, College of Fisheries, Konkan Krishi Vidyapeeth, Ratnagiri for his constant encouragement when the work was