SHELL WIPING IN *CALLIOSTOMA GRANULATUM* (BORN, 1778)

Shell wiping is a reasonably well documented phenomenon exhibited by the trochid gastropod *Calliostoma zizyphinum*, thathas been proposed to act as a feeding strategy and/or to reduce shell fouling[1,2]. To date, there are no published records of any other trochid species exhibiting similar behaviour. A serendipitous observation of shell wiping by *Calliostoma granulatum*, collected as bycatch, has confirmed that other trochid species do exhibit similar behaviour and led to further observations on several individuals.

Specimens of *C. granulatum* were collected by scallop dredge off Laxey head on the Isle of Man (NGR SC505:840) during the summer of 2005. Once collected all specimens where transported back to Port Erin Marine Laboratory for further investigation. Observation of shell wiping was made by placing a random selection of individuals into small glass aquaria and examining them at set time periods, taking photographs as necessary.

In a similar fashion to behaviour exhibited by *C. zizyphinum*[1] (Jones, 1984) shell wiping begins in *C. granulatum* with the posterior portion of the foot slowly extending dorsally over the shell, such that the sole of the foot is in contact with the surface of the shell. The foot is then extended laterally along the shell on the posterior side of the apex (Fig. 1). Once fully extended, the foot is swept up along the shell towards the apex. At the apex, the tip of the foot is swept over the spire of the shell and the foot is swept down laterally over the anterior half of the shell towards the shell aperture (Fig. 1). Once at the shell aperture the foot is slowly withdrawn over the bottom anterior section of the shell and retracted (Fig. 1). The whole process from start to finish takes between 40 – 80 minutes.

In general, specimens were observed to wipe their shell once or twice a day, similar to the frequency recorded for *C. zizyphinum*. Attempts to induce and/or to increase the frequency of shell wiping, either by seeding the surface of the shell with algae and/or by manually wiping the shell were ineffective. Although all of the collected specimens (n = 50) were not heavily fouled, some fouling was observed which suggests that shell wiping in *C. granulatum* probably plays a similar role to that in *C. zizyphinum* as a feeding strategy[2].

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[1] Jones HD 1984 *J. Moll. Stud*. **50**: 245-247.
[2] Holmes SP *et al*. 2001 *Mar. Ecol. Prog. Ser*. **212**: 171-181.

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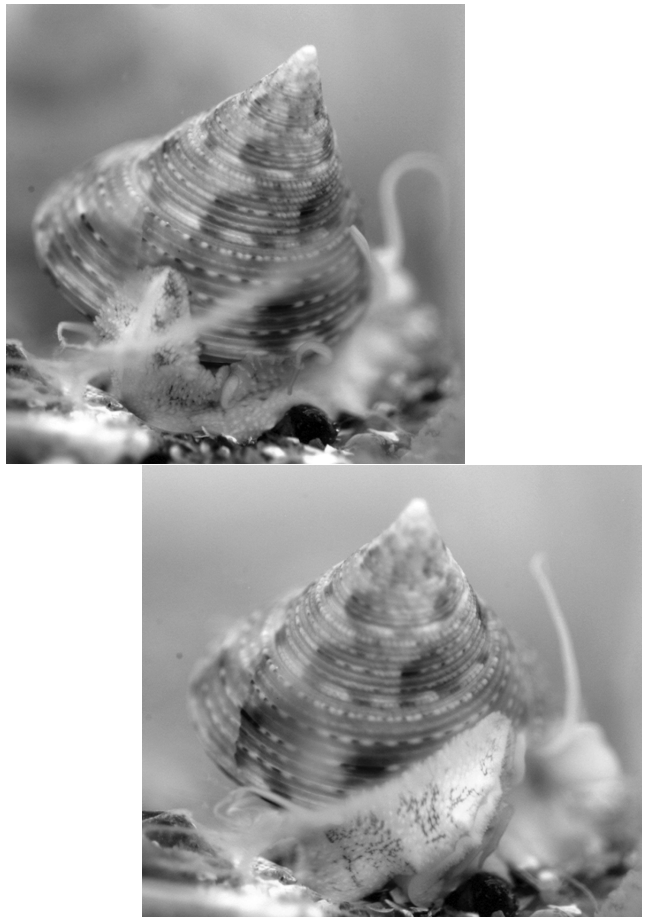

Fig. 1 Two images taken from a sequential series to demonstrate shell wiping in *Calliostoma granulatum*