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A FAST METHOD OF MEASURING SHELLS

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Several useful approaches in midden analysis involve size-frequency distributions of shell species. These include dietary reconstruction (Shawcross, 1967), reconstruction of foraging patterns (Nichol, n.d.), and assessment of predation pressure (Swadling, 1976; Anderson, 1981) and seasonality (Nichol, 1978: Ch. 4; Monk, 1982:211-215).

Unfortunately measuring large numbers of shells to establish the size-frequencies is very time consuming. In a recent note written with Bernardina Naus (Naus and Nichol, 1981) I suggested a somewhat complicated way of speeding up the process, but a much simpler method is as follows.

If the shells are arranged in rows on graph paper using the heavy 1 cm or 5 cm lines as baselines, then their lengths can be read off in quick succession. Adding a fixed vertical baseline greatly simplifies positioning the shells, as they can be just pushed up against it. If this baseline is a few centimeters high, the method also makes it easier to measure gastropod species like Turbo. These shells can be held in several positions when trying to measure them using calipers, but they naturally adopt a stable orientation when resting on a flat surface (see Fig. 1). Finally, the graph paper should be kept clean with a sheet of clear plastic, which can be wiped occasionally.

Experiment has shown that this method is 30-40% faster than calipers for easily measured species, and 50-60% faster for difficult species.

References

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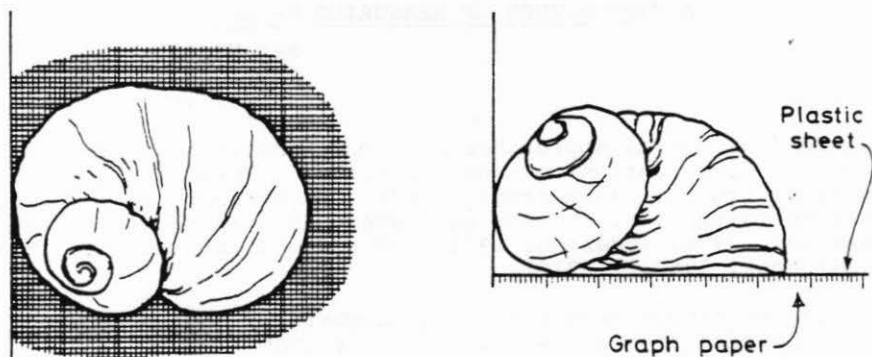


FIGURE 1. Illustrating measuring technique.

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