

Pace, D. A. and Manahan, D. T. (2006) Fixed metabolic costs for highly variable rates of protein synthesis in sea urchin embryos and larvae. *J. Exp. Biol.* **209**, 158-170.

Figs 1 and 7 in both the on-line and print versions of this paper were published incorrectly.

Panels A and B in Fig. 1 were not labelled. The correct figure is reprinted below.

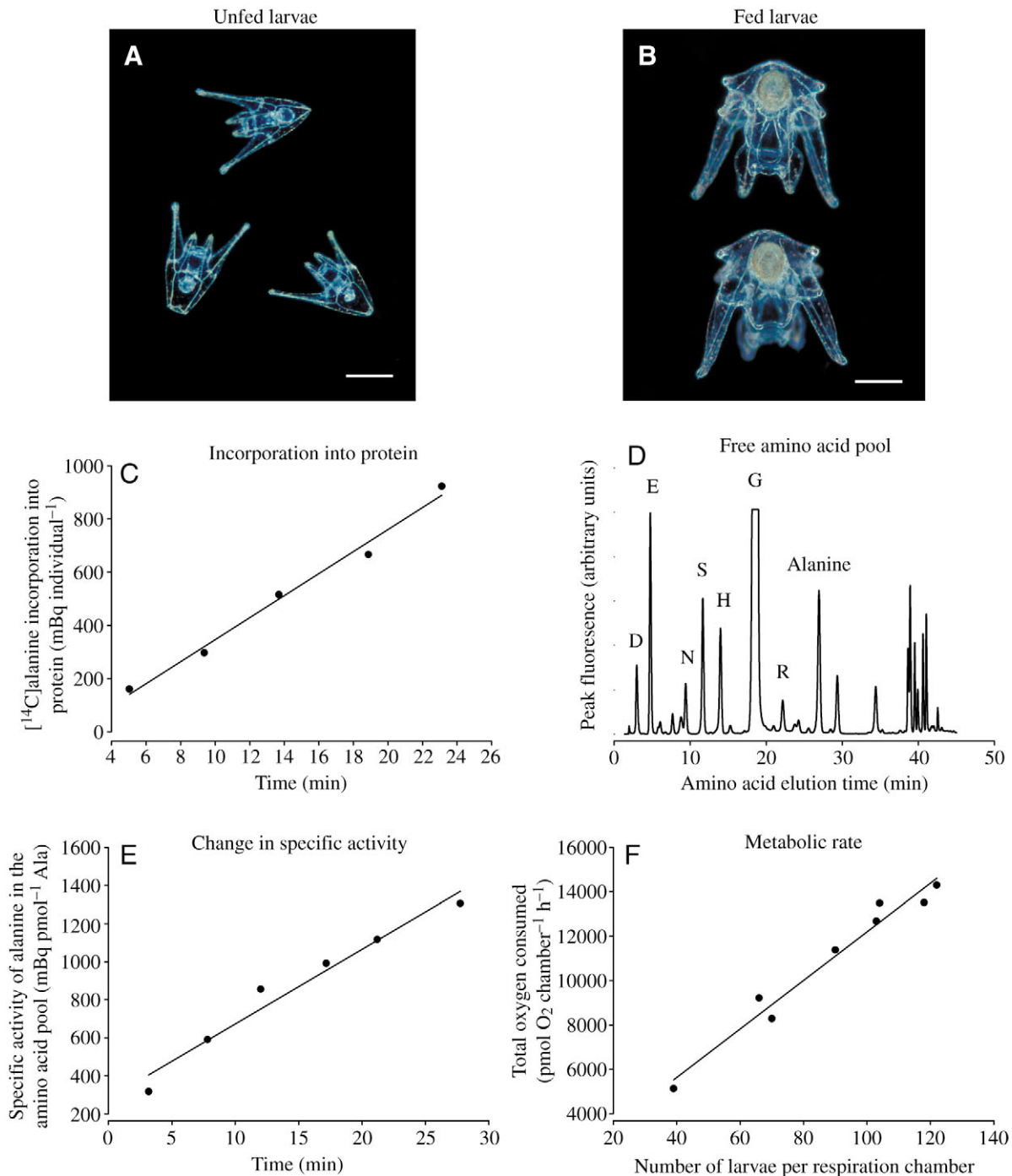


Fig. 1. Photomicrographs and primary data sets for protein synthesis and respiration rate measurements of 13-day-old fed larvae of *Lytechinus pictus*. (A) Photomicrograph of 13-day-old unfed and (B) fed larvae. Scale bars, 200 μ m. (C) Linear increase of [¹⁴C]alanine incorporation into the protein pool (TCA-insoluble fraction) of 13-day-old fed larvae of *L. pictus*: $y=41.4(\pm 2.71)x-68.4$ ($r^2=0.98$; $P<0.001$). Rates of [¹⁴C]alanine

incorporation were converted to absolute rates of protein synthesis ($\text{ng protein individual}^{-1} \text{h}^{-1}$) using the change in the specific activity of [^{14}C]alanine in the precursor free amino acid pool (Fig. 1E), the mole-percent of alanine in protein (7.8%; Table 1) and the mole-percent corrected molecular mass for amino acids in protein ($129.4 \text{ g mole}^{-1}$; Table 1). (D) Chromatogram of extracted free amino acid pool from 13-day-old larvae of *L. pictus* separated using high performance liquid chromatography (HPLC). D, aspartate; E, glutamate; N, asparagine; S, serine; H, histidine; G, glycine; R, arginine. Alanine was the [^{14}C]amino acid tracer used to determine rates of protein synthesis. (E) Specific activity of [^{14}C]alanine in the free amino acid pool during protein synthesis experiments with 13-day-old larvae of *L. pictus*. Specific activity was measured at the specified sampling intervals by quantifying the moles of total alanine with HPLC (as in Fig. 1D). [^{14}C]alanine was measured by liquid scintillation counting of the radioactivity associated with the alanine peak fraction. Increase of specific activity was described by the linear equation: $y=39.2(\pm 3.85)x+279.9$ ($r^2=0.96$; $P<0.001$ for ANOVA of regression slope). (F) Respiration rate of 13-day-old fed larvae of *L. pictus*. Each data point represents a different respiration chamber. Respiration rate was calculated by determining the slope of total oxygen consumption in each respiration chamber for the known number of larvae in that chamber: $y=109.5(\pm 8.4)x+1254$ ($r^2=0.97$; $P<0.0001$), where the slope of 109.5 has units of $\text{pmol O}_2 \text{ larva}^{-1} \text{h}^{-1}$.

In Fig. 7B, the broken line was labelled incorrectly as ‘Correct measured synthesis= 183 ng day^{-1} ’ instead of ‘Measured synthesis= 183 ng day^{-1} ’. The correct figure is reprinted below.

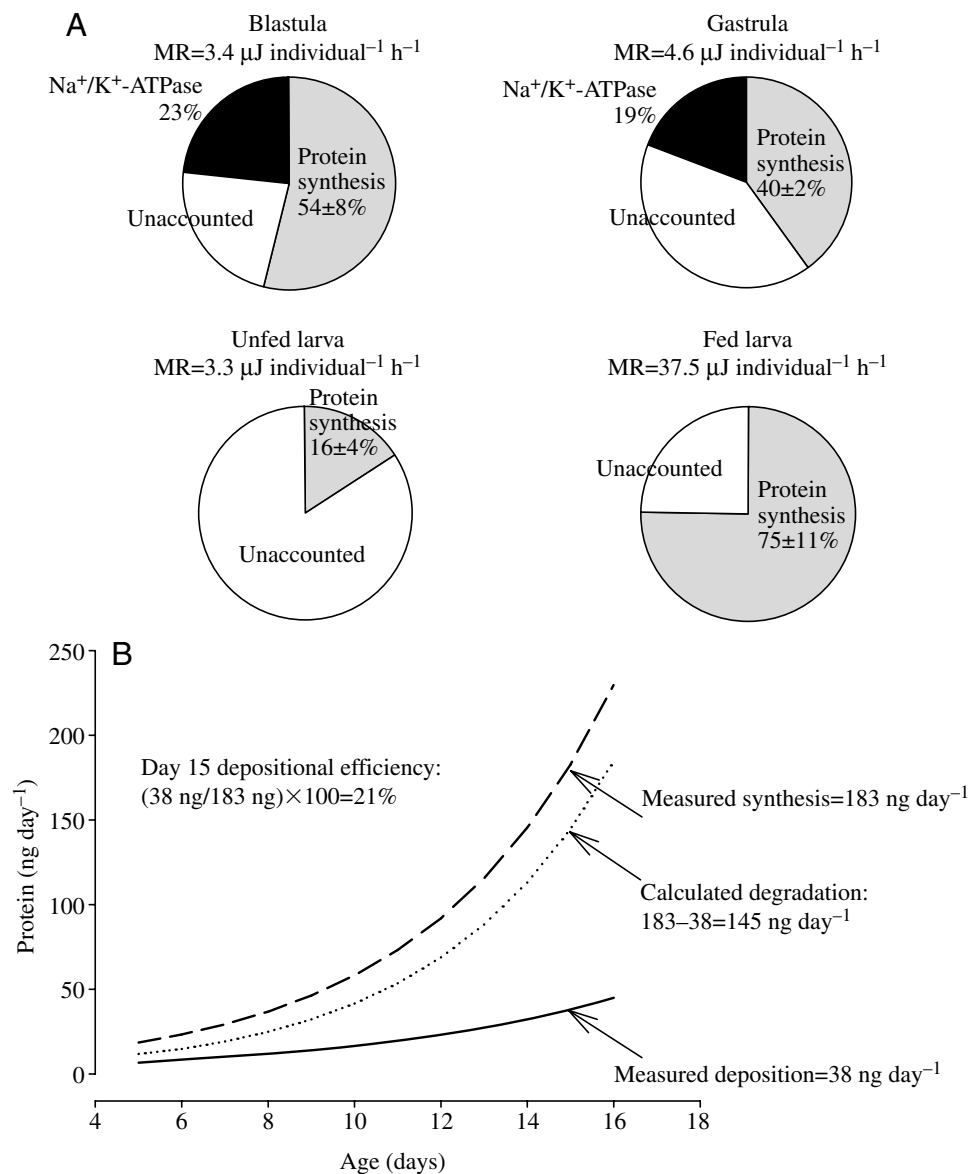


Fig. 7. (A) Setting metabolic rate. Percent of total metabolic rate (MR; given as $\mu\text{J individual}^{-1} \text{h}^{-1}$) for different developmental stages of *L. pictus* accounted for by protein synthesis and sodium pump activity (data on Na^+/K^+ -ATPase taken from Leong and Manahan, 1997). (B) Protein depositional efficiency. Rate of protein deposition (solid line) calculated from data on total protein content (see equation in legend of Fig. 2A). Rate of protein synthesis (broken line) calculated from protein synthesis rate (see equation in legend of Fig. 4). Rate of protein degradation during development (dotted line) calculated as difference between rates of synthesis and deposition. All rates were calculated on a per-larva basis. For 15-day-old larvae, the depositional efficiency was 21%.

In addition, on p. 166, right column, line 8, ‘protein dispositional efficiency’ should read ‘protein depositional efficiency’.

We apologise for these errors and any inconvenience caused.