seems possible that in this species we might find a significant relationship between size and metabolic rate, or acclimation ability, if measurements were made after a period of carefully controlled thermal history.

The temperature coefficients, b_1, are interestingly different in the three periods. Those of Periods I and III are both significant, their respective probabilities being $< .01$ and $< .001$. The temperature coefficient of Period II is very small, not statistically significant, and indicates a substantial loss of sensitivity between Period I and Period II.

Forsterygion varium

This is the largest species of the three from this genus that I studied. Here we see large negative size coefficients (Table 2). However, only that of the Period I sample is statistically significant, $P < .001$. Here, more clearly than in the case of *F. capito,* the apparent loss of effect of size on metabolic rate can be clearly related to the high and vagrant temperatures of Period II. A consistency of performance had still not been restored by Period III, indicating that the effects of exposure to the high temperatures of Period II were still affecting the system.

The temperature coefficients of Periods I and II are significant at the .01 and .02 levels of confidence, respectively. The increase of the coefficient from Period I to Period II is not significant ($< .20$). The coefficient of Period III is not significant, indicating that readjustment to lower, more stable temperatures had not come into equilibrium.

Forsterygion robustum

This was the most abundant benthonic species in the study area and permitted the most thorough sampling of any of the four species studied. A full range of sizes was consistently available and the sampling was better in regard to this variable also. Table 3 shows that there was a significant relationship between size and metabolic rate in study Period I. Size co-efficients were smaller in Periods II and III and are not significant.

The temperature coefficients of all three periods are significant, having probabilities of $< .001$, $< .001$, and $< .02$, respectively. From Period I to Period II there is a sharp drop in temperature sensitivity, the respective coefficients being 0.0407 and 0.0194. The difference between these coefficients is statistically significant at the .001 level of confidence. There is a slight further decrease in the temperature coefficient as one moves from Period II to Period III. However, this increase is not significant, $P < .20$.

The overall regression coefficients, R, of Periods I and II were found to be significantly different by an analysis of variance, $P < .01$.

Pseudolabrus celidotus

Data relating to this species appear in Table 4. In this fish we see in Period I a large negative size coefficient (-0.6059) which is highly significant, $P < .001$. However, Period II has again disrupted the consistency of performance and the negative size coefficient here, although larger than that of Period I, is significant only at the .05 level of confidence. In Period III the relationship between size and metabolic rate is lost, the coefficient being smaller and of no statistical significance.