Caecilia tentaculata. Sometime before Dunn's examination, the two specimens probably found their way into each others containers. The tag attached to the holotype of *Chthonerpeton corrugatum* remains anomolous, and there seems no way to be sure when it was attached or to what it refers. We have searched for a 'Tedda b. Mekka' in Brazil and other South American countries without success.

If this scenario is correct then two anomolous distribution records are explained and a type locality, Brazil, can be assigned to *Chthonerpeton corrugatum.*

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SHORT NOTE:

ALLOMETRY IN *TESTUDO SULCATA:* A REAPPRAISAL

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INTRODUCTION

In a recent paper published in this Journal. Mahmoud, Naiem and Hamad (1986) described the relationship between selected shell dimensions and body mass in the desert tortoise, *Testudo sulcata* from Sudan. After transforming their data into logarithmic form they presented their results for the relationship between carapace length and body mass as model 1 allometric equations of the form,

$$y = ax^b$$

where carapace length y is related to body mass x by the intercept a and exponent b (b describes the slope of the log transformed data). Their analysis for two groups of captive *T. sulcata* produced exponents of 0.81 and 1.66. In addition, they quantified a set of measurements of carapace length and body mass given by Cloudsley-Thompson (1970) for *T. sulcata* and calculated an exponent of 0.91. Their equations for *T. sulcata* are thus significantly different from those previously described in the literature for this type of information (e.g. Meek, 1982; Iverson, 1984); indeed the differences are of such a magnitude that they prompted us to re-examine Cloudsley-Thompson's (1970) data.

METHOD

Model 1 allometric equations were obtained from the data by least squares regression after transformation to logarithmic form (Bailey, 1981). As in Mahmoud *et al.* (1986) carapace length has been treated as the dependent variable y and body mass the independent variable x. Model 2 regression would be a more appropriate analysis for this data since body mass may be subject to error (Sokal & Rohlf, 1981) but the correlation coefficients (r) for the data are high and thus there would be no difference in the exponents between the two methods (Alexander, Jayes, Maloiy & Wathuta, 1979). The t-distribution has been used to calculate 95 per cent confidence intervals for the exponents (Bailey, 1981).

RESULTS AND DISCUSSION

Fig. 1 shows the measurements of carapace length (mm) and body mass (g) from Table 1 of Cloudsley-Thompson's (1970) paper plotted on logarithmic coordinates, with an additional data point taken from a juvenile *T. sulcata* mentioned on page 19 of his paper. The line taken through the data is derived from the equation.

$$y = 13.5X^{0.36\pm0.01} \qquad (r = 0.99,\ n = 8) \qquad [1]$$

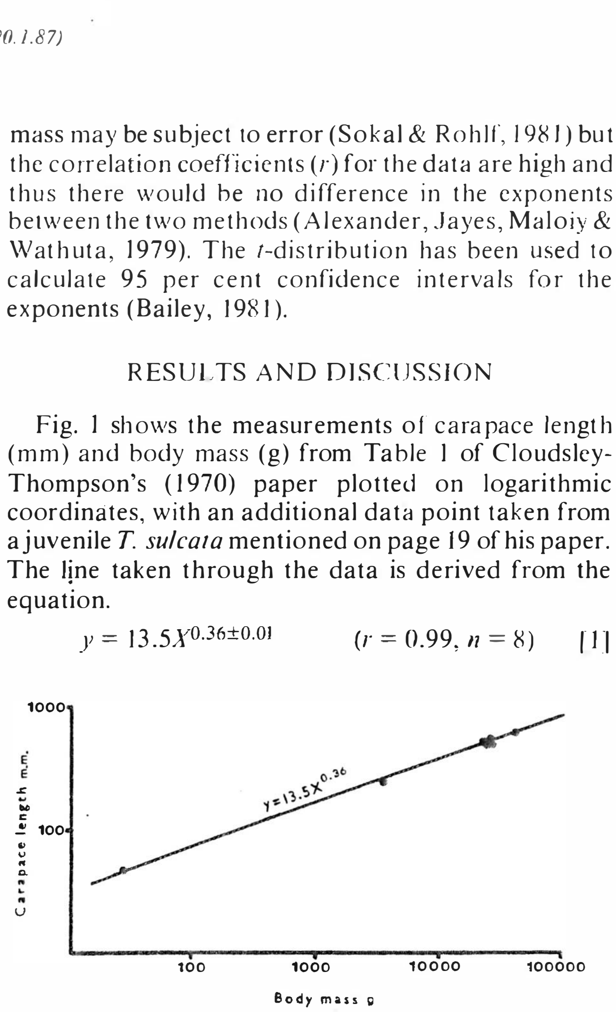

Fig. 1 A graph on logarithmic coordinates of body mass plotted against carapace length in *Testudo sulcata*. The line taken through the data was calculated using equation [1] as shown.

However, Mahmoud *et al.* used only the data from Cloudsley-Thompson's Table 1 but this makes little difference between the equations giving

$$y = 10.05X^{0.39\pm0.02} \qquad (r = 0.99,\ n = 7) \qquad [2]$$

Mahmoud *et al.* analysed their data in units of cm and kg but this makes no difference to the value of b in the equations. Equation [1] is probably the more accurate description of the relationship since the measurement of the juvenile considerably extends the range.

As can be seen, these exponents are significantly different from the exponent of 0.91 calculated by Mahmoud and his co-workers for the Cloudsley-Thompson data; indeed they are in much better agreement with the 0.33 required for geometric similarity and exponent of 0.34 for four species of chelonians given in Meek (1982) which implies a retention of shape as growth proceeds. It would appear that Mahmoud *et al.* have committed errors in calculation, at least for Cloudsley-Thompson's measurements since as can be clearly seen in Fig. 1, an exponent of 0.36 is in good agreement with Cloudsley-Thompson's data. Equation [1] would therefore disagree with the conclusion of Mahmoud and his co-workers that 'the exponents for *T. sulcata* are higher than the exponents given for other tortoises'. An interesting point concerns the slope predicted by equation [1]. This would be in good agreement with the slope of Mahmouds *et al's.* data in their Fig. 1 (at least in comparison to the slope for group B) if the labelling on their Figure was reversed — that is, if the horizontal axis was labelled as body mass and the vertical axis as carapace length. A further error is the incorrect plotting of variables in Figs. 2a and 2b; since the variables on which the plots are based are logarithmic (Tables 1 and 2) the arithmetic plots in the Fig's cannot give linear relationships as drawn.

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SHORT NOTE:

CAPTIVE REPRODUCTION OF KEMP'S RIDLEY *LEPIDOCHELYS KEMPI*

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ABSTRACT

Captive mating, nesting and hatching of the critically endangered Kemp's ridley sea turtle, *Lepidochelys kempi* has been achieved among a colony maintained at Cayman Turtle Farm in the Cayman Islands. The minimum age of sexual maturity was five years. Mating behaviour and nesting parameters are discussed in relationship to the captive green colony of the Farm.

INTRODUCTION

The single known aggregate nesting population of the endangered Kemp's ridley sea turtle has declined in recent years despite extensive protection and monitoring efforts by international organisations (Groombridge, 1982). Attempts to establish an additional population are ongoing on Padre Island off the Texas gulf coast (Klima and McVey, 1982). The mating, nesting and hatching in 1984 of Kemp's ridleys held in captivity provided increasing evidence that such a project could indeed prove successful (Wood and Wood, 1984). Cayman Turtle Farm (CTF) maintains a captive breeding population of green sea turtles, *Chelonia mydas*, (Wood and Wood, 1980) and has added to its facilities a small group of Kemp's ridleys for the purpose of establishing a captive breeding colony. The limited success of the 1984 season has been followed with nesting and hatching in 1986.