CORRECTION TO: A LARGE FOREFIN OF *ICHTHYOSAURUS* FROM THE U.K., AND ESTIMATES OF THE SIZE RANGE OF THE GENUS

Judy A. Massare[1] and Dean R. Lomax[2]

[1]Earth Sciences Department, SUNY College at Brockport, Brockport, NY, USA; jmassare@brockport.edu
[2]School of Earth and Environmental Sciences, The University of Manchester, Oxford Road,
Manchester, M13 9PL, UK; dean.lomax@manchester.ac.uk

This note corrects and amends a dataset of humerus and preflexural vertebral column lengths from Massare et al. (2015, Appendix 4). Four specimens, AGC 7, BGS 37 (corrected number), NHMUK R11801, and NHMUK 85791, were removed from the dataset because only precaudal lengths could be measured. Another specimen, AGC 12 was removed because it is a specimen of *Protoichthyosaurus*. Although BRLSI 3551 is a composite specimen, the vertebral column and humerus are authentic (Massare and Lomax, 2016), so it was not removed from the dataset. This correction has provided the opportunity to include eight additional specimens in the analysis. In this analysis, the preflexural vertebral column length was measured from the anterior-most exposed centrum to the bend in the tail. When two humeri were measured on a specimen, the larger measurement was included.

We revised the linear regression analysis of humerus length to preflexural length (Massare et al., 2015, fig. 9). The new regression line is significant at $p < 0.001$, with $r^2 = 0.881$, indicating more scatter around the line than for the original analysis ($r^2 = 0.902$). The estimated length of the preflexural vertebral column for the individual represented by the large forefin (YORYM 2005.2411) is 216 cm using the regression equation. Adding that to the estimated skull length of 54 cm, results in an estimated preflexural length, including the skull, of 270 cm, 22 cm less than the original estimate. The tail fluke would have been at least 40 cm long, based on that of NHMUK OR2013, giving a total length for the YORYM 2005.2411 individual of just over 3 m, from the tip of the rostrum to the end of the tail.

Institutional Abbreviations—**AGC** Alfred Gillett Collection, cared for by the Alfred Gillett Trust (C & J Clark Ltd), Street, Somerset UK; **ANSP** Academy of Natural Sciences, Drexel University, Philadelphia, USA; **BELUM** National Museums Northern Ireland (Ulster Museum), Cultra, UK; **BGS** British Geological Survey, Keyworth, Nottingham, UK; **BRLSI** Bath Royal Literary and Scientific Institute, Bath, UK; **BRSMG** Bristol Museum and Art Gallery, Bristol, UK; **BRSUG** Bristol University Geology Department, Bristol, UK; **CAMSM** Sedgwick Museum, Cambridge University, Cambridge, UK; **LEICT** Leicester Arts and Museums Service, New Walk Museum and Art Gallery, New Walk, Leicester, UK; **MOS** Museum of Somerset, Taunton, Somerset, UK; **NHMUK** (formerly BMNH) Natural History Museum, London, UK; **NMW** National Museum of Wales, Cardiff, UK; **OUMNH** Oxford University Museum of Natural History, Oxford, UK; **UWGM** University of Wisconsin Geology Museum, Madison, USA; and **YORYM** Yorkshire Museum, York, UK.

REFERENCES

Massare, J. A., D. R. Lomax, and A. Klein. 2015. A large forefin of *Ichthyosaurus* from the U.K., and estimates of the size range of the genus. *Paludicola* 10:119-135.

Massare, J. A., and D. R. Lomax. 2016. Composite specimens of *Ichthyosaurus* in historic collections. *Paludicola* 10:207-240.

TABLE 1: A revision of Appendix 4 in Massare et al. (2015), giving humerus and preflexural vertebral column lengths for specimens of *Ichthyosaurus*. Corrected measurements are shown in italics. Specimens that were added to the analysis are shown in bold. Species identifications are provided where possible. Specimens from BRLSI are on long term loan to NMW.

Specimen	Species	Humerus length (cm)	Preflexural vertebral column length (cm)
AGC 11	*I. larkini*	5.4	*94.0*
AGC 14		8.3	*133.0*
ANSP 15766	*I. somersetensis*	7.7	*157.0*
ANSP 17429	possible *I. somersetensis*	6.7	97.5
BELUM unnumbered		6.9	170.0
BGS 955		2.7	*60.0*
BGS 956	*I. conybeari*	2.5	52.0
BRLSI M3550		*5.9*	112.0
BRLSI M3551		8.3	*170 ***
BRLSI M3572		*9.9*	*177 ***
BRSMG Cb16611[1]		*7.4*	168.5
BRSMG Cb4997	*I. somersetensis*	9.0	163.5
BRSMG Cb3578	*I. somersetensis*	4.8	86.6
BRUSG 25300	*I. larkini*	7.7	150.5
CAMSM J35187	*I. communis*	4.0	*74.0*
CAMSM J35188		2.1	*52 ***
CAMSM J59574	*I. somersetensis*	7.9	*149 ***
LEICT G123.1992		7.2	144.3
LEICT G125.1992		6.8	90.0
LEICT G126.1992		5.2	93.5
MOS 166/1992		2.8	*57 ***
MOS 8373	possible *I. somersetensis*	7.1	*115.1*
NHMUK OR120	*I. anningae*	2.8	59.1
NHMUK OR2013* [2]	*I. somersetensis*	~10	181 **
NHMUK OR36256	*I. communis*	2.0	51.0
NHMUK R8437	*I. breviceps*	2.4	59.0
NMW 93.5G.2	*I. conybeari*	2.5	55.6
OUMNH J.10330		8.2	*180 ***
OUMNH J.13799		*7.1*	*149 ***

[1]　Measured on a cast of the specimen at LEICT.
[2]　Measured on a cast of the specimen at UWGM.
**　An estimated fluke length was subtracted from a measurement of total length of the vertebral column, excluding the skull.

FIGURE 1: Preflexural vertebral column length vs humerus length for nearly complete skeletons of *Ichthyosaurus* (n= 29, Table 1), assuming isometric growth. The regression equation is: (preflexural vertebral column length) = 17.56 (humerus length) + 10.09. $R^2 = 0.881$.

Vertebral Column Length vs Humerus Length in *Ichthyosaurus*