nuclei, or dissolved gas gradients, or differential compressibility. All these mechanisms can be made to fit the experimental facts. Too little is known about whether sustained dissolved helium gas gradients are attainable, or of sufficient magnitude, or can cause the pain of arthralgia. Also, no satisfactory data are available on the compressibility of different tissue types around joint structures, and whether these various compressibilities might be complicated by being dependent on the absolute pressure; or, again, although undoubtedly gas nuclei are present in tissues, whether they are present in sufficient numbers that crushing them will cause pain, is totally speculative.

Given these basic uncertainties it is necessary to collect more data to clarify the various possibilities. In this search for an understanding of the mechanisms involved the prime consideration is to ensure that the experimental subjects are not adversely affected. It is clear from the carefully controlled measurements made in this present dive series that this is true to depths as great as 420m and a cautious approach to even greater depths is the next step. Animal experiments are unfortunately not yet directly helpful to the human situation. It is now known that some mammals (sperm whales) can descend to 2250m depth in about 15 minutes. Experience indicates that this would be lethal for most mammals, including human beings. In contradistinction some varieties of laboratory mammals (rats) are unable to survive for a few days at 300m which is quite an uneventful exposure for most mammals. In these circumstances an old philosophical saying is very apt, “The proper study of mankind is man”.

The first six dives are covered by report AMTE(E) R 78-401. The last two dives by AMTE(E) R 80-402

UNUSUAL FISH BONE INJURY

IR Gibbs

I wish to report a further hazard associated with the consumption of North Queensland reef fish. The patient was a previously healthy 65 year old male who presented with a complaint of throbbing anal pain, not associated with defaecation and not similar to the pain of piles from which he had previously suffered. His bowel actions were normal and he had passed no blood or mucous.

External examination was normal. Rectal examination revealed the presence of an elongated foreign body which felt like a pin or a needle with both ends embedded in the mucosa, its long axis being in the axis of the rectum.

Excruciating pain made manipulation with the proctoscope impossible. By digital manipulation the upper pole of the foreign body was released from the mucosa and it was then rotated about its lower pole. Further manipulation resulted in the delivery of a large coarse fish bone approximately 4 cms in length.

This hazard could have been avoided by selecting less bony fish, and by limiting libations to a fishing success until filleting has been completed.

TURNING TURTLES?

Question:

When a turtle is brought up in a net is there anything that commercial fishermen can do to help the animal?

Answer:

Fisherman should elevate the turtle’s hindquarters for several hours to permit water to drain from the lungs, according to NOAA regulations. Afterwards the animal should be released over the stern with the engine in neutral. This should be done in an area where the turtle is unlikely to be recaptured or injured by vessels. Many turtles that appear dead or comatose can be saved by proper resuscitation procedures and careful return to the sea.

In the summer of 1980 about 1,850 sea turtle carcases washed up on beaches of southeastern United States. IOF members who find a turtle stranded on a beach from Virginia to Texas are asked to report this information.

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CORRECTIONS

We are grateful to an overseas reader for drawing attention to several proof-reading errors which crept into the January-March issue of the Journal. Please correct your copies in the following matters:-

Page 17

Left column INNER EAR BAROTRAUMA
First paragraph Line 3. “decompression” should read “compression”.
Line 12. “ascent” should read “descent”.

Page 19
Right column, third paragraph.
Line 3. “decompression” should read “decompression sickness”.
Line 6. “(n-63)” should read “(n=36)” for the numbers to add up correctly (this error appears in the Abstracts of the Seventh Symposium on Underwater Physiology).

Page 24.
Left column, fourth paragraph. Line 4. “minus 10°C” should read “minus 1°C”