Ganges river systems in India from as far up as Nainital in the north-west, and Dibrugarh in the north east, the lowermost points being the mouths of Ganges. There is no report of the sighting or occurrence of the Ganges susu in any other river-system in India. In Nepal, these cetaceans reportedly occurred at Deoghat about 100 km from the Indo-Nepalese border along the Narayani river with an altitude of 250m above sea level.

In Pakistan, a closely related form, the Indus susu, now given a separate species status, *viz.*, *P. minor*, occurred in the Indus river, but the population was getting segregated locally due to construction of dams.

135. On the occurrence of *Orcaella brevirostris*, the Irrawaddy dolphin in Bangladesh.

A.K.M. Aminul Haque, *Department of Fisheries Biology and Limnology, Bangladesh Agricultural University, Mymensingh.*

Besides the Ganges susu, *Platanista gangetica*, at least three cetacean species frequent the coastal waters of Bangladesh. They are *Orcaella brevirostris*, the Irrawaddy dolphin, *Delphinus delphis*, the common dolphin, and *Neophocaena phocaenoides*, the finless porpoise. All these forms ascend the rivers in Bangladesh up to a certain limit, and the Irrawaddy dolphin happens to be the most frequently found form. While quite a number get entangled in fishing nets in the Bay of Bengal, at least two dead specimens were found ashore in 1960 and 1978. The collection of the last-mentioned specimen was followed by repeated queries made to the author from all quarters.

Orcaella brevirostris is thus not only a rare specimen but also a quite common in the Bay of Bengal, where it often gets entangled in fishing nets. Further, it ascends the rivers to several miles from their mouths.

136. Isolation, purification and selection of effective strains of *Rhizobium japonicum*.

Syed Ansar Ahmed, Golam Kauser Joardar, Feuzia Begum and Hamida Begum, *Microbiology Section, Food Science and Technology Division, BCSIR Laboratories, Dacca.*

A large number of *Rhizobium japonicum* strains have been isolated from the nodules of soybean plant grown in this country. The characterisation of the purified strains were done by the standard methods. The effectivity of the selected strains has been confirmed and the paper chromatography showed the presence of the amino acids indicative of the effectiveness.

137. Rapid screening of diarrheal patients during an epidemic by dark field microscopy.

William M. Spira, Indadul Huq, Qazi Shafi Ahmad and Anwarul Huq, *International Centre for Diarrheal Disease Research, Bangladesh.*

During a diarrheal epidemic which broke out in November 1977, dark field screening was done for detecting *Vibrio cholerae* and non agglutinating *Vibrio*. Stool specimens and rectal swabs were obtained by rectal catheter from moderate

to severely dehydrated patients immediately after hospital admission. Liquid stool sample and rectal swab were first examined directly by darkfield and phase contrast microscope. Specimens which were initially negative were finally examined after enrichment in Bile peptone broth for 3 hours at 1 hour interval. If any organism with the typical darting motility of *Vibrios* were observed it was tested for inhibition of motility by Gardner and Venkatraman O group I *V. cholerae* antiserum. If motility ceased in antiserum it was identified as *Vibrio cholerae*. The organism was then serologically typed with Inaba and Ogawa antiserum. If O Group I *V. cholerae* antiserum had no effect on the *Vibrio* motility, the organism was considered to be non-agglutinating *Vibrio*. This screening has been found to facilitate selecting patient negative for *Vibrios* for other studies like *E. coli* and Rota Virus diarrhea. The bloody mucoidy stool may be selected for dysentery study. From a tota of 1355 patients screened, 868 were found to be *Vibrio cholerae*, 37 to be non-agglutinating *Vibrio*. In about 86% of the cases could be *Vibrios* identified by dark field from liquid stool samples whereas the percentage is much lower from rectal swabs. It was also found that 3 hours' enrichment culture was more suitable than direct examination for the detection of *Vibrio* by dark field microscopy.

138. Adhesive properties of NAG *Vibrio cholerae* to isolated rabbit brush border membrane.

Anwarul Huq, William M. Spira, Imdadul Huq and Qazi Shafi Ahmad. *International Centre for Diarrhoeal Disease Research, Bangladesh, Dacca.*

Non-agglutinating *Vibrio cholerae* adheres to the brush border membrane isolated from rabbit small intestinal epithelia cells. The rate of adhesion was found optimum at 30°C on agitation. The adhesion of *Vibrios* on the brush border membrane becomes firm when they were allowed to adhere for about 30 minutes. Different NAG *Vibrio cholerae* strains belonging to Heiberg's group I, II, V and VI numbering 40, 106, 37 and 22 respectively were included in the study. The maximum number of *Vibrios* of group I, II and V adhered on brush border whereas very few of group VII adhered. *Vibrio parahaemolyticus* did not adhere at all to the brush border membrane. Forty Tetracycline and Streptomycin resistant strains belonging to group II, V and VII were also included in the study. Adherence pattern were found to be same in this group as with the sensitive strains.