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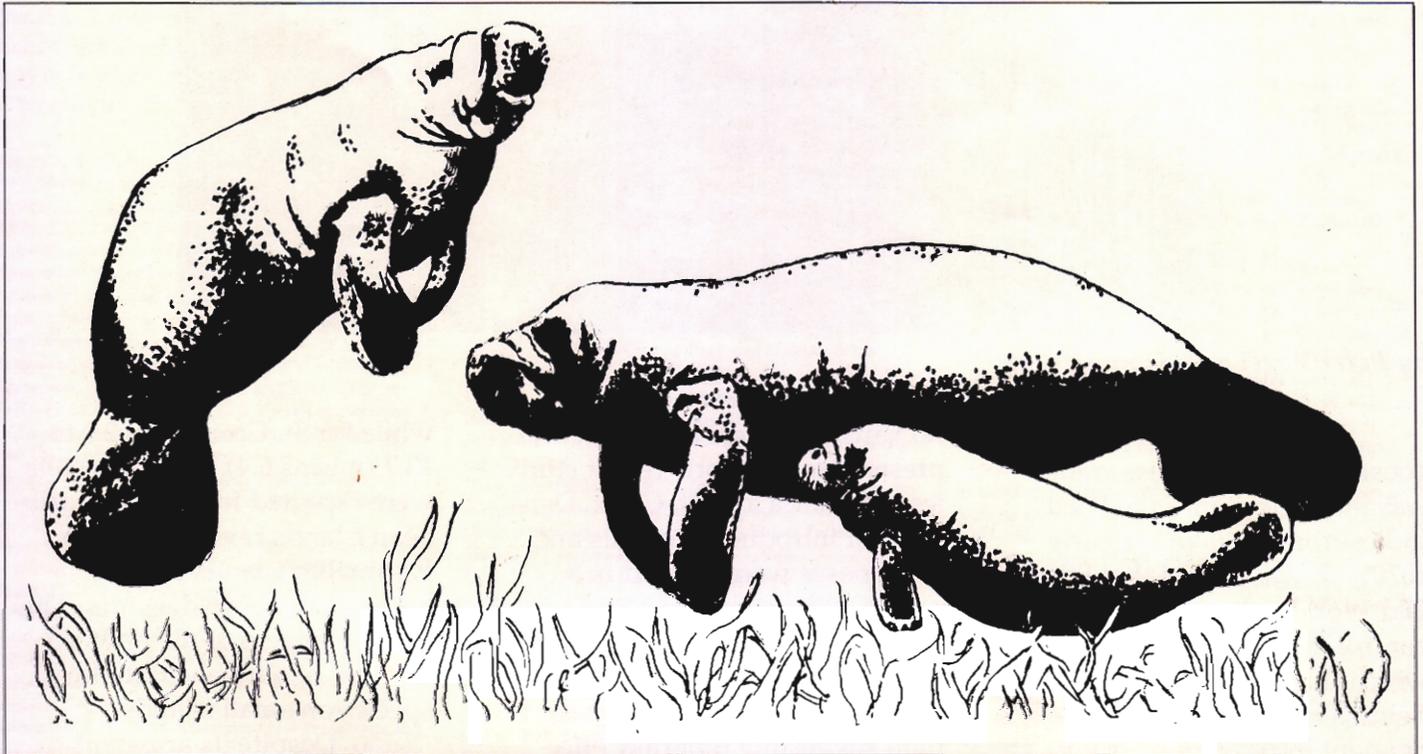
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DIET AND THE WEST INDIAN MANATEE



by Barbara A. Chow

The West Indian manatee, *Trichechus manatus*, is endangered in Jamaica and throughout its range in the Caribbean. A gentle shy creature, the manatee is adapted to forage for aquatic plants and seagrasses and is the only true mammalian herbivore. Thus it has an important role to play in coastal ecosystems.

The manatee grazes with the help of its paddle-like forelimbs up to 8 hours daily. Weighing as much as a ton, they can consume up to 10% of their body weight as they forage across seagrass meadows. Aptly they are commonly referred to as 'sea cows'.

How are these animals able to reach and maintain such sizes in the marine environment? The answer, scientists say, lies not only in the volume that they eat but how food is digested. The digestive tract of the animal is enormous comprising the bulk of the body cavity. And interestingly, its nutrition is obtained the same way as terrestrial herbivores (cows, horses) only more efficiently.

In the lower reaches of the intestine, digestion of plant fibre occurs through a fermentation process involving micro-organisms. These micro-organisms break down the cellulose in plant fibres and produce fatty acids, carbon dioxide and meth-

ane but it is the fatty acids that are absorbed into the bloodstream and provide energy for growth. Thus the manatee survives on its diet of aquatic plants and provides a parallel with its terrestrial counterparts.

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