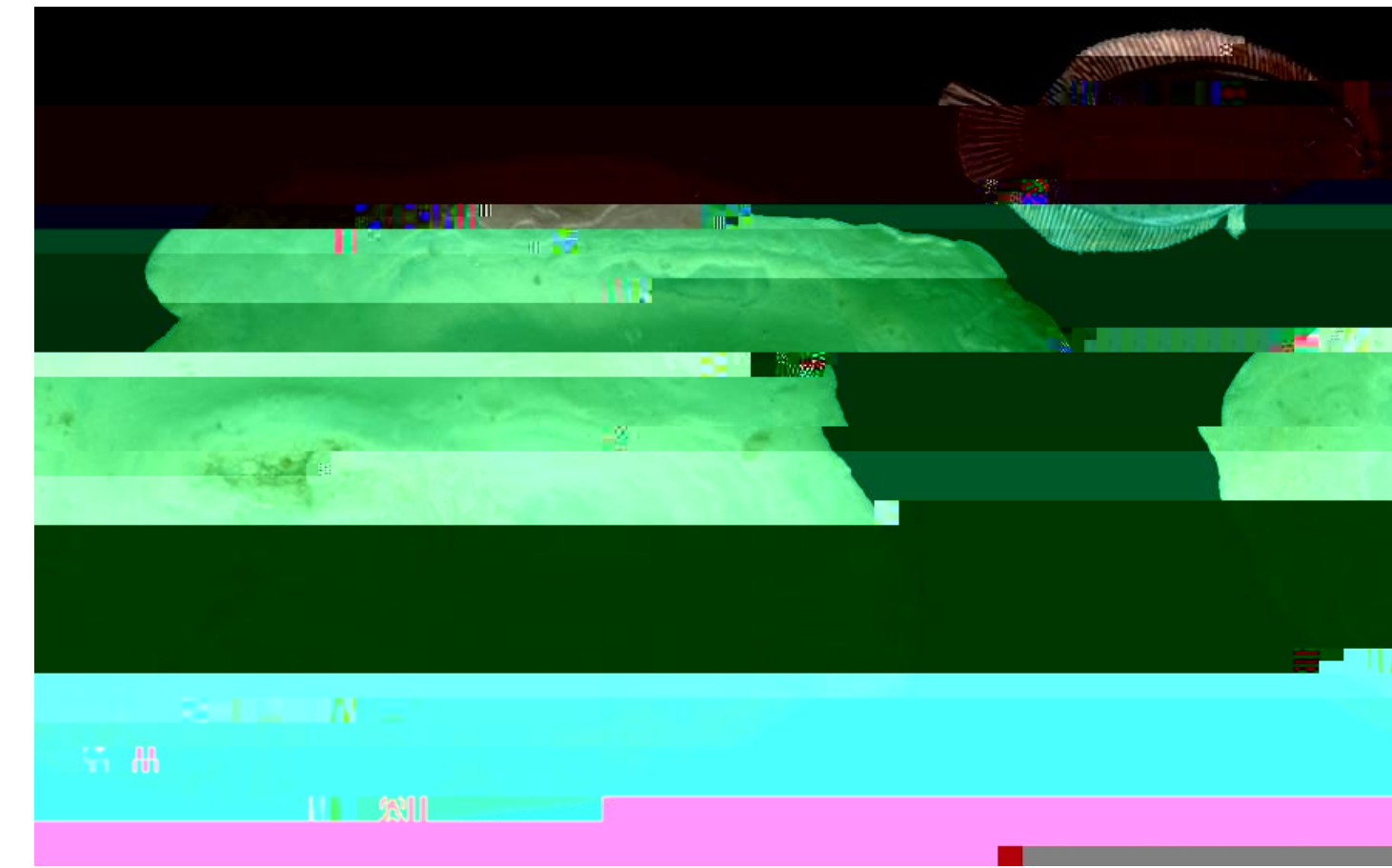


¹The Richard Stockton College of New Jersey, Pomona, NJ

²Rutgers University Marine Field Station, Institute of Marine and Coastal Sciences, Tuckerton, NJ



Clupeiform otolith (fish image courtesy of Penobscot River Restoration Trust). Pleuronectiform otolith (fish image courtesy of State of Delaware Division of Fish and Wildlife). Perciform otolith (fish image courtesy of the Marine Department of Resource). Gadiform otolith (fish image courtesy of NOAA). Table of otolith leng9(h)8e5 7 -14()-140 2.

A total of 832 otoliths were analyzed from recovered seal scat. Each otolith was inventoried using a stereo microscope, an attached digital camera, and image analysis software.

Individual images were examined and identified to order, family, and, where possible, the genus species level using reference images and otolith identification manuals (Table 1). There were four primary orders identified: Clupeiformes (Fig. 2), Pleuronectiformes (Fig. 3), Perciformes (Fig. 4), and Gadiformes (Fig. 5).

Each otolith was assigned an erosion grade based on the condition of the otolith after passage through the digestive tract (Fig. 8). This scale was from 1 (low) - 3 (high)(Fig. 10, Fig. 11, Fig. 12). Otoliths recovered directly from a fish are classified as 0 (Fig. 9). Each erosion grade value was used as a correction factor when calculating fish prey lengths.

Otoliths were measured (to mm) using Image Pro Plus 7 software (Fig. 1). Corrected otolith measurements were entered into equations taken from peer-reviewed resources to calculate fish length (Table 1 and Table 2). Equations for some genus species were not available or deemed inappropriate for certain length classes.