A12- 37436

Jennifer Dill and Alvin C. Camus
Department of Pathology, University of Georgia, Athens, GA
Tonya M. Clauss, Cara L. Field, Alexa McDermott, and Nicole Hatcher
Georgia Aquarium, 225 Baker Street NW, Atlanta, GA
**Epinephelus tukula** in Aquaria

- Potato grouper
  - Also called the "potato cod" or "potato rockcod"
- Warm-water marine fish
- Large size – length and body mass
- Protogynous hermaphrodite
- Territorial and aggressive
Normal Fish Stomach

- Physiologically and morphologically similar to mammalian counterpart
  - Size varies with feeding habits, often large expansile folds
  - Glandular fundus with chief and parietal cells
  - Pylorus
  - 2 circular muscle layers
- Coarse eosinophilic granular cells in submucosa
- Absent in some species (cyprinids)
Normal Stomach Histology

Major cell types:
• Mucus Neck cells – mucus
• Parietal cells – hydrochloric acid
• Chief cells – pepsinogen
• Endocrine cells/ APUD
History

• Adult, female potato grouper
• On public display
• Found moribund at the water’s surface
• Euthanized
Necropsy
Histopathology
Electron Microscopy
Gastric Parietal Cell Carcinoma

• Morphologic Diagnosis:
  Stomach: Parietal Cell Carcinoma

• Gross, microscopic and electron microscopy findings were consistent with gastric parietal cell carcinoma

• Rare
Granulomas
Questions?