Supplementary Material

# Supplementary Figures and Table

A picture containing graphical user interface

Description automatically generated

**Supplemental Figure 1.** (A) Number of consumer effects studies which examine megafauna species, based on the He & Silliman 2016 data set. 163 marshes studies were examined total, with 44 studies that focused on megafauna (27%). (B) The number of studies that examined domesticated or wild megafauna species within the He & Silliman 2016 consumer effects data set. Of the 44 total megafauna studies, 5 looked at wild animals (11%), and 39 looked at domesticated animals (89%).

A herd of sheep standing next to a body of water

Description automatically generated

**Supplemental Figure 2.** Megafauna in salt marshes include (A) American alligator (*Alligator mississippiensis*; photo: J. Nifong), (B) sea lion (*Zalophus californianus*) and harbor seals (*Phoca vitulina*; photo: L. Gaskins), (C) sea otter (*Enhydra lutris*; photo: R. Eby), (D) mule deer (*Odocoileus hemionus*; photo: L. Gaskins).

**Supplemental Table 1.** Megafauna documented in salt marshes through a literature review and through personal observations. Each animal includes the common name, scientific name, density (when available), reference(s), and the country where the animal was observed in a salt marsh.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **English Common name** | **Scientific name** | **Density** | **Reference(s)** | **Country** |
| African Buffalo | *Syncerus caffer* |  | JB Adams pers obs | South Africa |
| Alligator Gar | *Atractosteus spatula* |  | (Selman, 2018) | USA |
| American Alligator | *Alligator mississippiensis* | 0.3-6.3 indiv/km of creek, average of 3.45 ind/km (salt marsh), 2.25 ind/km (lake, river, swamp, freshwater marsh) | (Nifong and Silliman, 2013; Nifong et al., 2014; Murray et al., 2015), (Nifong et al., 2015), (O'Brien and Doerr, 1986), Webb unpublished data, (Wood et al., 1985) | USA |
| American Crocodile | *Crocodylus acutus* |  | (FNAI, 2010) | USA |
| Black Bear | *Ursus americanus* | 0.16-0.30 bears/km2, average of 0.23 bears/km2 (salt marsh), 0.258 bears/km2 (forest) | (Lombardo, 1993; Smith et al., 2012), (Lombardo, 1993), (Schwartz and Franzmann, 1989) | USA |
| Bottlenose Dolphin | *Tursiops truncatus* | 3.7-5.4 indiv/km2, average of 4.55 indiv/km2 (salt marsh), 6.4-14.6 indiv/km2, average of 10.5 indiv/km2 (gulf) | (Young and Phillips, 2002; Balmer et al., 2011), (Mullin, 1990) (both densities) | USA |
| Broadnose Sevengill Shark | *Notorynchus cepedianus* |  | (Russo, 2015) | USA |
| Brown Bear | *Ursus arctos* |  | (Smith et al., 2004) | USA |
| Bull Shark | *Carcharhinus leucas* |  | (Bangley, 2016) | USA |
| Cattle | *Bos taurus* | 0.5-2 indiv/ha (salt marsh) | (Jensen, 1985; Amaral and Jablonski, 2005), JB Adams pers obs, (Andresen et al., 1990) | Denmark, Brazil, South Africa |
| Common Warthog | *Phacochoerus africanus* |  | JB Adams per obs | South Africa |
| Common Zebra | *Equus quagga burchellii* |  | JB Adams per obs | South Africa |
| Donkey | *Equus africanus asinus* |  | JB Adams pers obs | South Africa |
| Florida Panther | *Puma concolor coryi* |  | D Onorato pers obs | USA |
| Gemsbok | *Oryx gazella* |  | JB Adams pers obs | South Africa |
| Goat | *Capra aegagrus hircus* |  | JB Adams per sobs | South Africa |
| Gray Wolf | *Canis lupus* |  | (Smith et al., 2004) | USA |
| Green Turtle | *Chelonia mydas* |  | (Nagaoka et al., 2012) | Brazil |
| Harbor Seal | *Phoca vitulina* | 18.42 ind/km shoreline (salt marsh), 10.1 ind/km shoreline (outer coast) | (Eby et al., 2017), (Form, 2016), (Akeman and Akeman, 2016) | USA |
| Hippopotamus | *Hippopotamus amphibius* |  | JB Adams per obs | South Africa |
| Lion | *Panthera leo* |  | (Stander, 2019) | Namibia |
| Loggerhead Turtle | *Caretta caretta* |  | (Stoneburner et al., 1982) | USA |
| Mule Deer | *Odocoileus hemionus* |  | LC Gaskins pers obs | USA |
| Nile Crocodile | *Crocodylus niloticus* |  | JB Adams pers obs | South Africa |
| Ostrich | *Struthio camelus* |  | JB Adams pers obs | South Africa |
| Sea Lion | *Zalophus californianus* |  | LC Gaskins pers obs | USA |
| Sea Otter | *Enhydra lutris* | 0.61 indiv/ha (salt marsh), 0.0445 indiv/ha (kelp forest) | (Eby et al., 2017), (Tinker et al., 2018), (Nicholson et al., 2018) | USA |
| Sheep | *Ovis aries* | 1.5-10 indiv/ha (salt marsh) | (Ranwell, 1961; Laffaille et al., 2000), JB Adams pers obs, (Berg et al., 1997) | England, France, South Africa |
| Springbok | *Antidorcas marsupialis* |  | JB Adams pers obs | South Africa |
| Water Buffalo | *Bubalus bubalis* | 1.0-1.3 indiv/ha (salt marsh) | (Amaral and Jablonski, 2005), (Sweers et al., 2013) | Brazil |
| West Indian Manatee | *Trichechus manatus* |  | (Wingard and Lorenz, 2014) | USA |
| White-tailed Deer | *Odocoileus virginianus* |  | JP Morton pers obs | USA |
| Wild Boar | *Sus scrofa* |  | (Sharp and Angelini, 2016) | USA |
| Wild & Domesticated Horse | *Equus ferus, Equus ferus caballus* | 0.39 indiv/ha low marsh (wild horse salt marsh), 0.035 indiv/ha (wild horse mountainous national park) | (Beeftink, 1977; Turner, 1987) (wild horse), JB Adams pers obs (domesticated horse), (Taggart, 2008) (density, wild horse), (Dawson and Hone, 2012) (density, mountains) | N&W European countries, USA, South Africa |

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