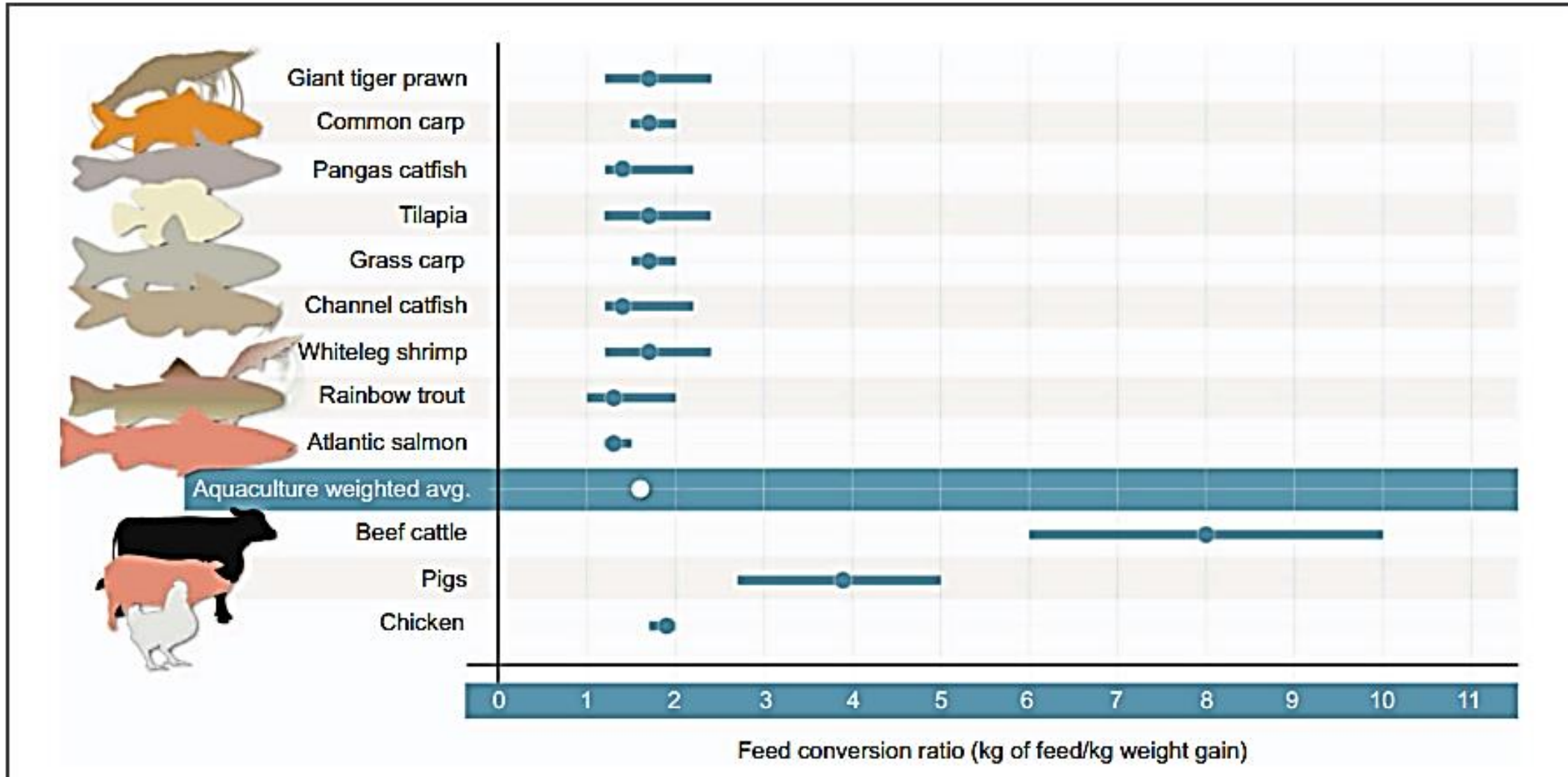


Aquaculture

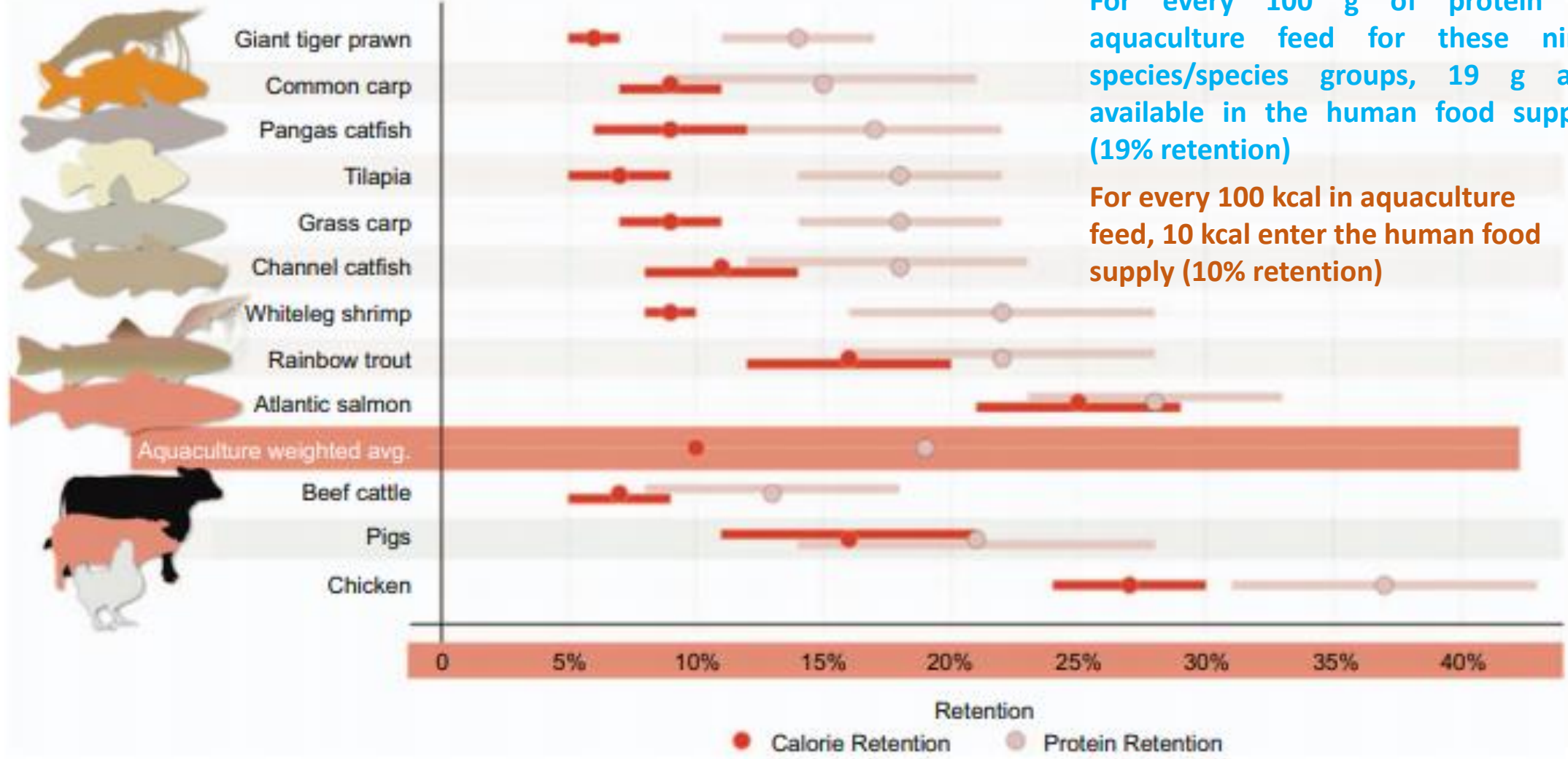
Dr. Mujtaba A.Tahir

Why Aquaculture?

Is a resource efficient means of food production



Feed conversion ratios for selected aquatic and terrestrial farmed animal species. Dots represent means and bars indicate range. Lower values signify higher efficiency. Sources: Tacon and Metian (2008), Smil (2013), Shike (2013), Zuidhof et al (2014), and Rabobank Research (2015).



Protein and calorie retention for selected aquatic and terrestrial farmed animal species. Dots represent sample means and bars represent standard deviations. Higher values indicate more efficient retention.

Water Chemistry in Freshwater Aquaculture

- **Water Quality Variables**
 - **Temperature**

All biological and chemical processes in an aquaculture operation are influenced by temperature. Fish adjust their body temperature and metabolic rate by moving into cooler or warmer water. Each species has a preferred or optimum temperature range where it grows best. At temperatures above or below optimum, fish growth is reduced. Mortalities may occur at extreme temperatures.

Water Quality Factor

Temperature

Test Procedure Preferred

Thermometer, Telethermister

Ranges for Fish Culture

species dependent