

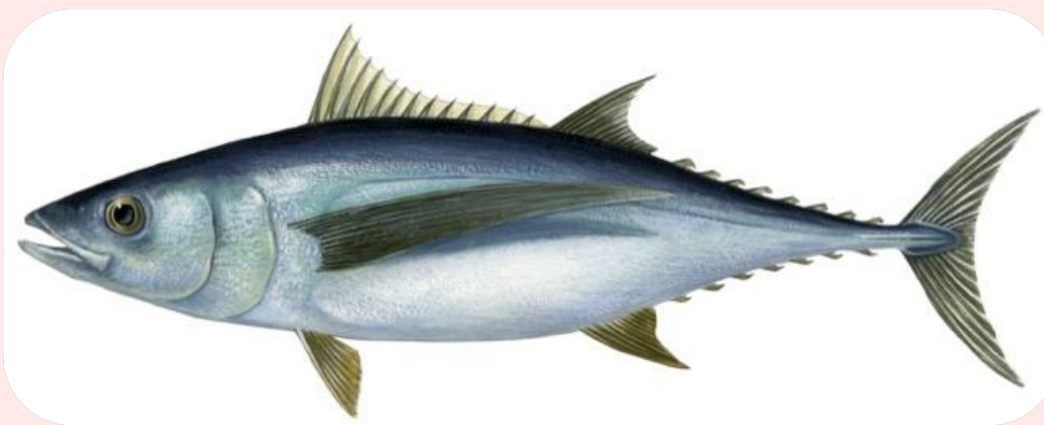
## Fatty acid profile, total fat, protein, moisture and ash in different edible parts of Albacore tuna (*Thunnus alalunga* Bonnaterre, 1788) – Preliminary Results

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### INTRODUCTION & AIM

#### Albacore tuna composition and impact on health



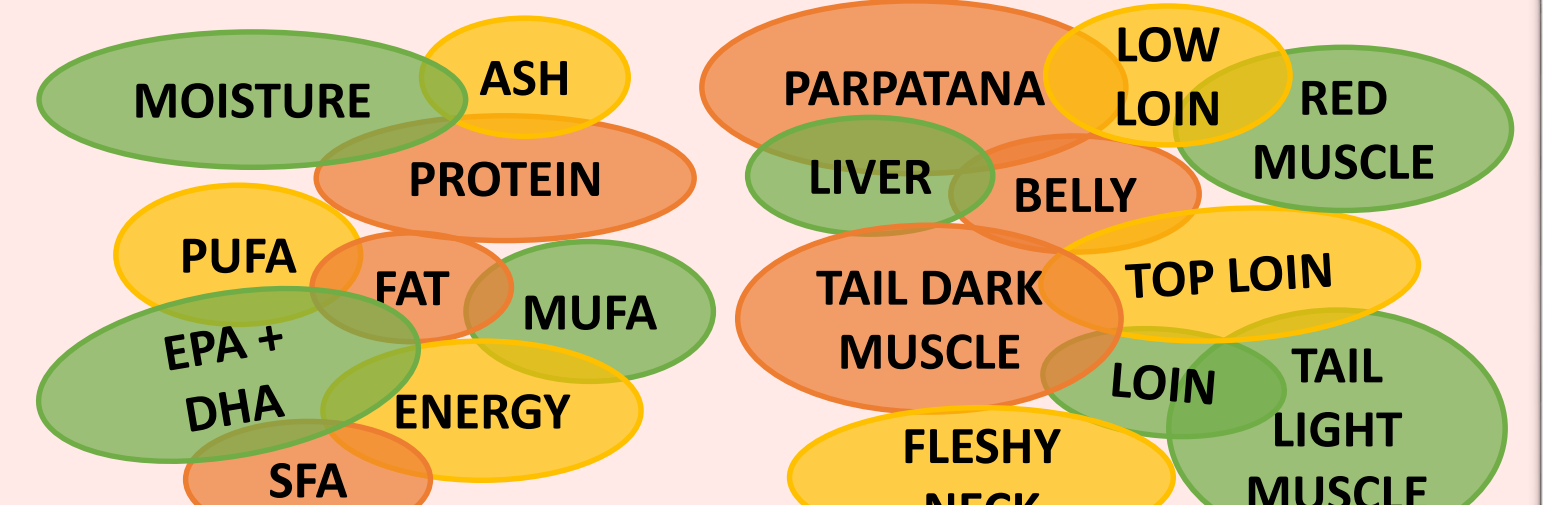
Mainly fatty acid (FA) and protein

#### Tuna has a huge number of edible parts



Can the nutritional profile be different?

#### Proximal composition and fatty acid profile



What's the value of each part?

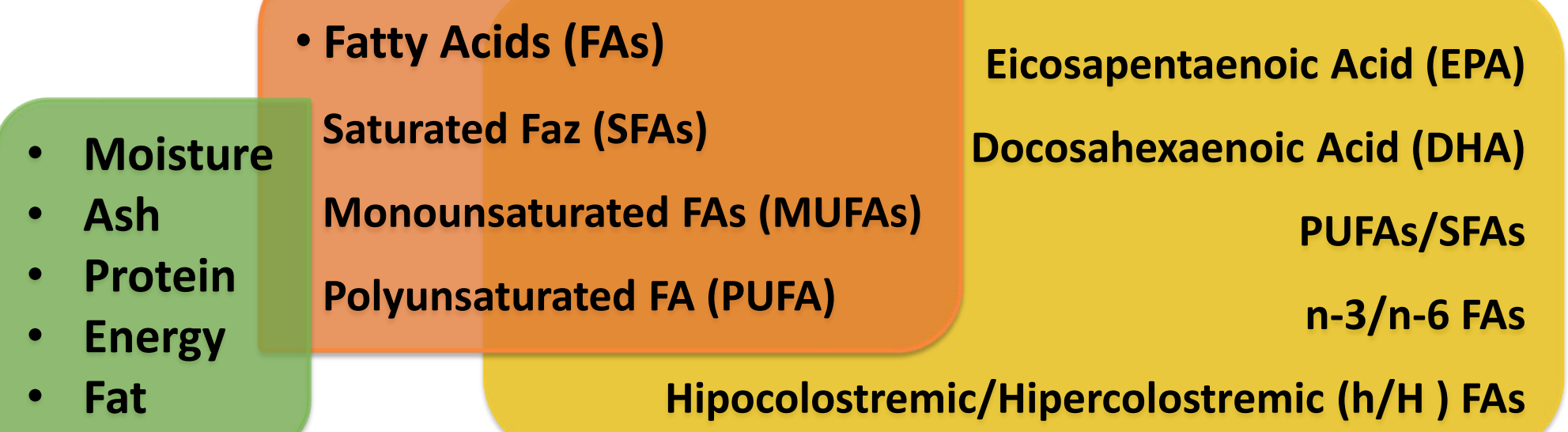
### MATERIALS AND METHODS

#### PROCESSING SAMPLES

#### *Thunnus alalunga* (Bonnaterre, 1788)

- Caught in Cantabrian Sea - June 2023
- Male with 13 kg
- 10 samples taken of different edible parts and frozen at -18°C

#### CHEMICAL ANALYSES



### RESULTS & DISCUSSION

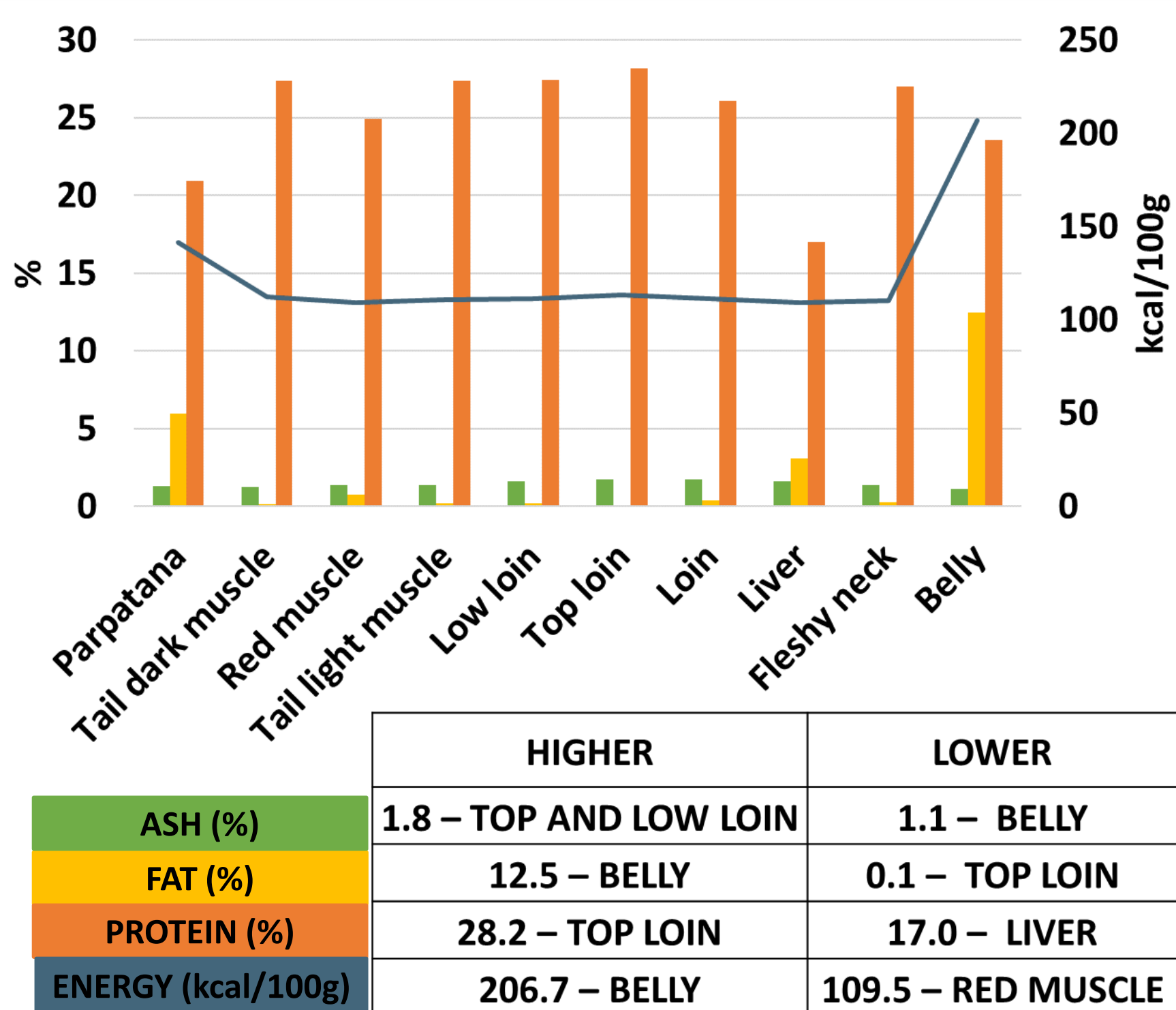


Figure 1. Proximal composition of 10 different edible parts of *T. alalunga*.

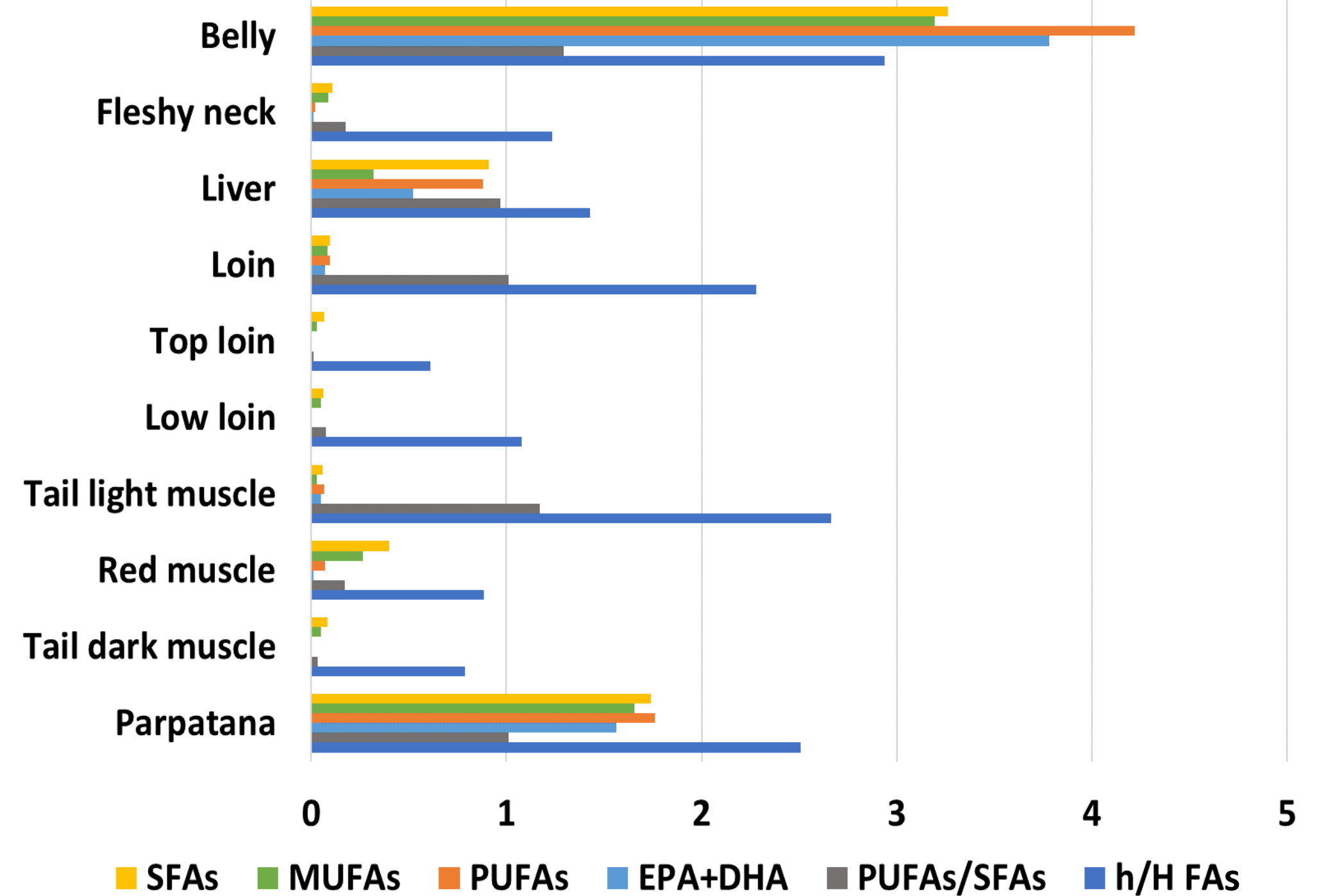


Figure 2. Total SFA, MUFA and PUFA as a percentage (%) of the total fat wet sample and EPA+DHA, PUFA/SFA and h/H FAs ratio of the 10 different edible parts of *T. alalunga*.

- In general, the value of total PUFAs was higher than total MUFAs and SFAs.
- The highest values of fat content (12.5%), PUFAs (4.2%), n-3PUFAs (3.9%), EPA+DHA (3.8%) and h/H ratio FAs were recorded in the belly.
- The belly and the tail light muscle had the highest values of EPA+DHA/total fat and PUFAs/SFAs.
- The highest n-3/n-6 FAs were registered in belly (23.2/1) and parpatana (21.3/1).

### CONCLUSION

- There's significant variability ( $p < 0.05$ ) in nutritional profiles among the samples.
- Some exhibiting particularly richness in n-3PUFA EPA+DHA beneficial to human health in terms of their fatty acid profile.

### REFERENCES

- AOAC. 2000. Official Methods of Analysis. 17th ed. Assoc. Off. Anal. Chem., Gaithersburg, Maryland, USA.
- Chen, J. and Liu, H. 2020. Nutritional Indices for Assessing Fatty Acids: A Mini-Review. International Journal of Molecular Sciences, 21: 5695. doi:10.3390/ijms21165695.
- Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011. Official Journal of the European Union, L 304/18, 22.11.2011.