LARVAL AND JUVENILE PERCH FEEDING IN SOME ESTONIAN AND LATVIAN STUDY LAKES

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Study goal:

To study larval perch feeding in littoral and open-water sites of the lakes during their first year of feeding – in spring, summer and autumn, 2019.

Lake Prossa
Lake Kaiavere
Lake Akste

Lake Auciema
Lake Riebinu
Lake Laukezers
Lake Varzgune

Study site:


○ Latvian lakes   ○ Estonian lakes

Fieldwork & laboratory methods:

Larval and juvenile perch samples were collected by specifically targeted nets: beach-seines and scoopnets in littoral of the lakes and a bongonet in open-water sites. Larval and juvenile fish diet was estimated by a gut segmentaion analysis via epifluorescence microscopy.
Index calculations: Ivlev, IRI

Study results: calculation of different indices of dietary importance

Ivlev`s index of selectivity (E) shows which food objects are favoured and which avoided by 0+ perch larvae and juveniles.
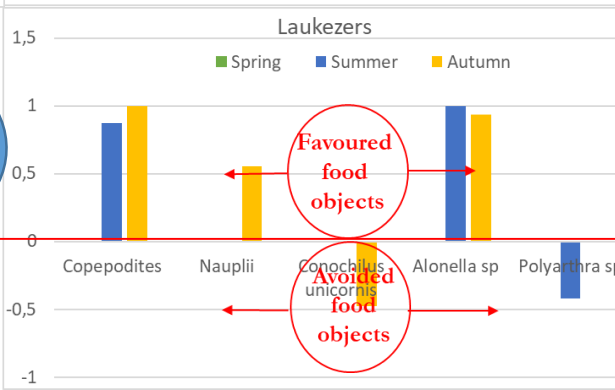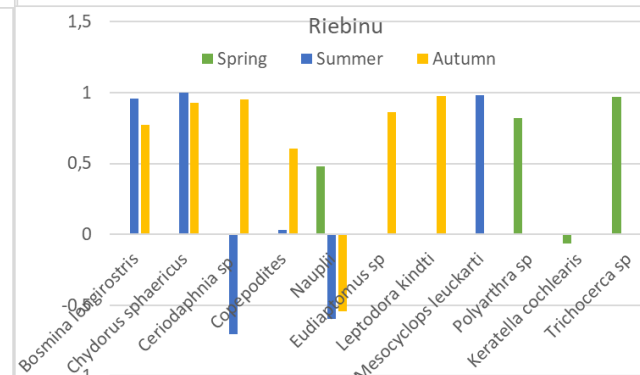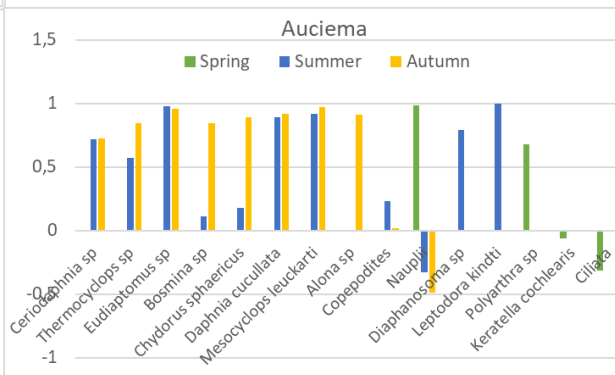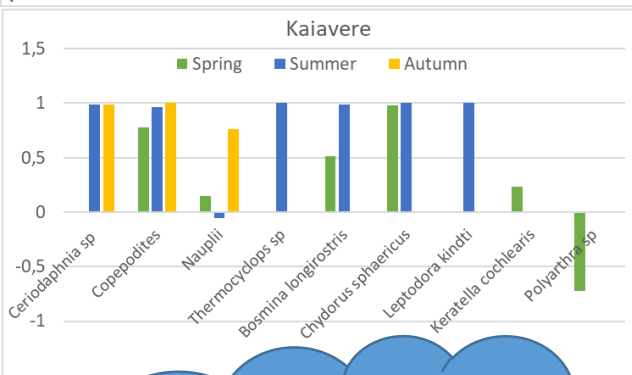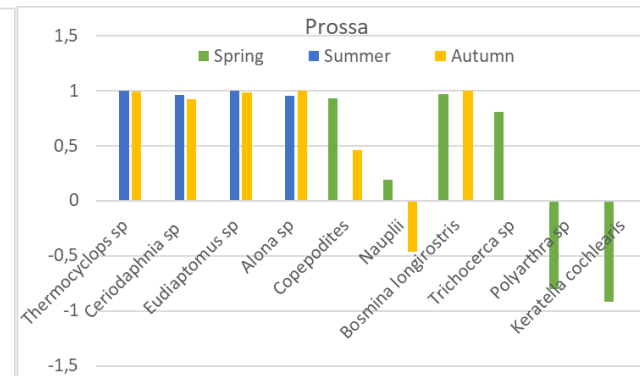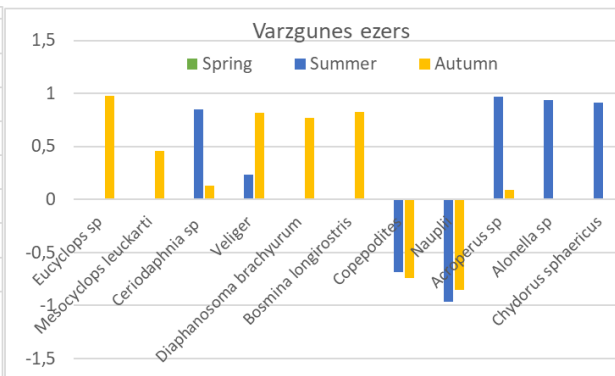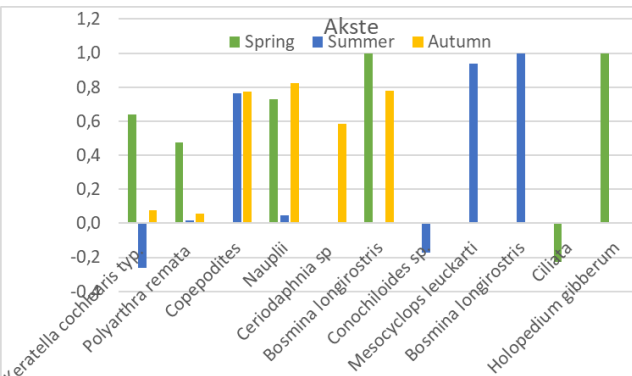

> Cladocerans were the most favoured food objects in all the study lakes where they were present and ciliates were always avoided by 0+ perch.

> Rotifers were eaten only if there occurs shoratge of food objects, e.g. in L. Akste. But in L. Kaivavere which had very rich and abundant ZP community, *Polyarthra* was avoided. Also in case of L. Prossa cladocerans and copepodites were sufficient for 0+ perch and *Keratella* was avoided.

Study results: calculation of different indices of dietary importance

Percent index of food items relative importance (%IRI) is calculated on the basis of three different indices – numbers, mass and frequency of occurrence. It shows which food objects are relatively the most important concerning all these three indices.
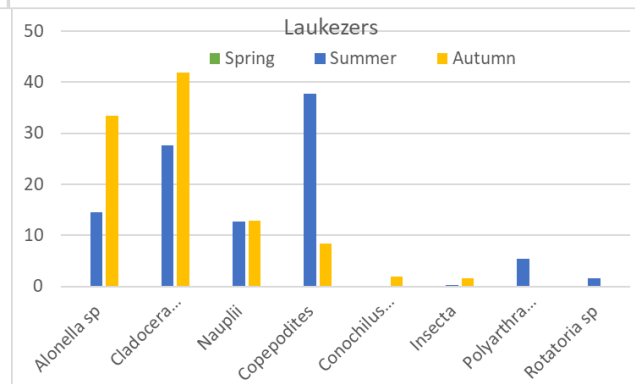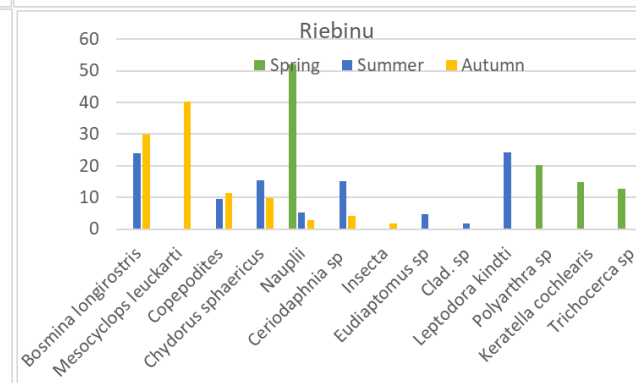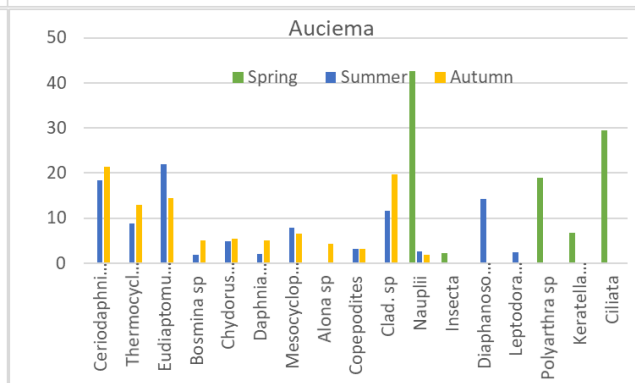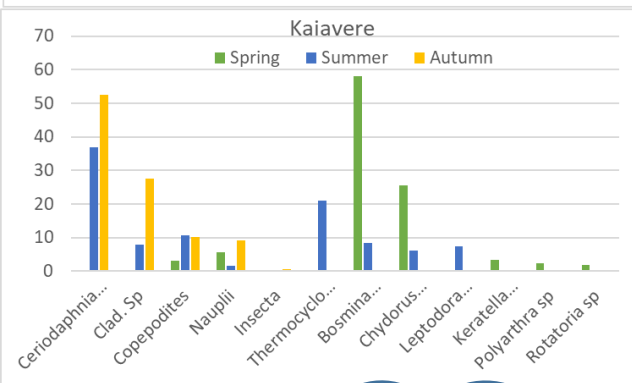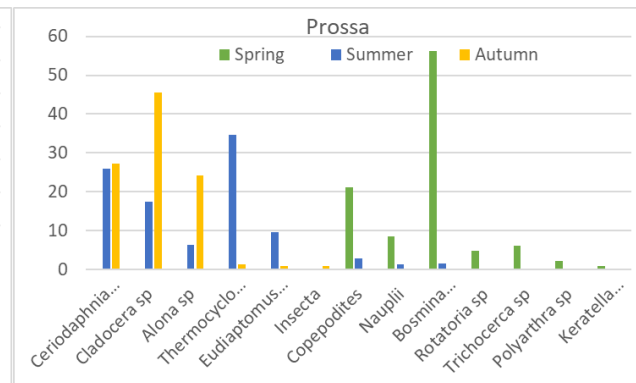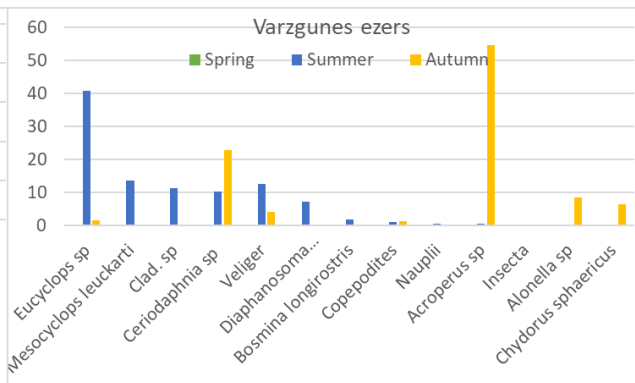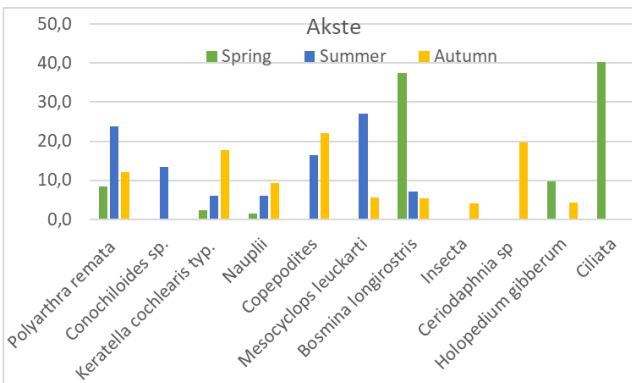
Cladocerans were very important in 0+ perch diet. Ciliates were important only when they accounted more than 30% from total ZP biomass, then they formed important food source for 0+ perch. Rotifers were mainly not impotant, except L. Auciema.