

Master thesis at FiBL

Title	Feeding of sustainably produced duckweed (Lemnaceae) as protein-rich feed component in feed of trout carp or perch
Background	<p>In comparison to terrestrial animals, fish usually show improved feed conversion efficiencies, albeit also having a higher need of feed protein, especially so the higher the trophic level of the species. Protein-rich feed components, mainly fish and soybean meal, are mostly imported into Switzerland. A 3-year project will look into the production efficiency of duckweed (Lemnaceae, <i>Landoltia punctata</i> and <i>Spirodela polyrhiza</i>) grown on diluted cow slurry and its application as feed component for different, commercially important fish species.</p> <p>Duckweed can contain protein levels of >40% in the dry matter and show a significantly higher area productivity compared to all terrestrial crop plants and could thus be a new ideal protein source for animal nutrition.</p>
Method	Feeding experiment in an aquariasystem of different fish species (Eurasian perch <i>Perca fluviatilis</i> , rainbow trout <i>Oncorhynchus mykiss</i> or common carp <i>Cyprinus carpio</i>) with different levels of duckweed.
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Scheduled time period	Start summer/autumn 2018, open for changes
Literature	On request
