

DANUBIUS-RI Supersite Upper Danube Austria

Part of ERIC
Danubius-RI

*Integrated river-floodplain observatory network
for long-term, high-resolution
environmental monitoring*

Focus: surface-groundwater
interactions – floodplain dynamics –
long-term observation

Capabilities: monitoring network –
high-resolution sensors – mobile
research platforms

Summer
2026

Part of
LAWI-TECH

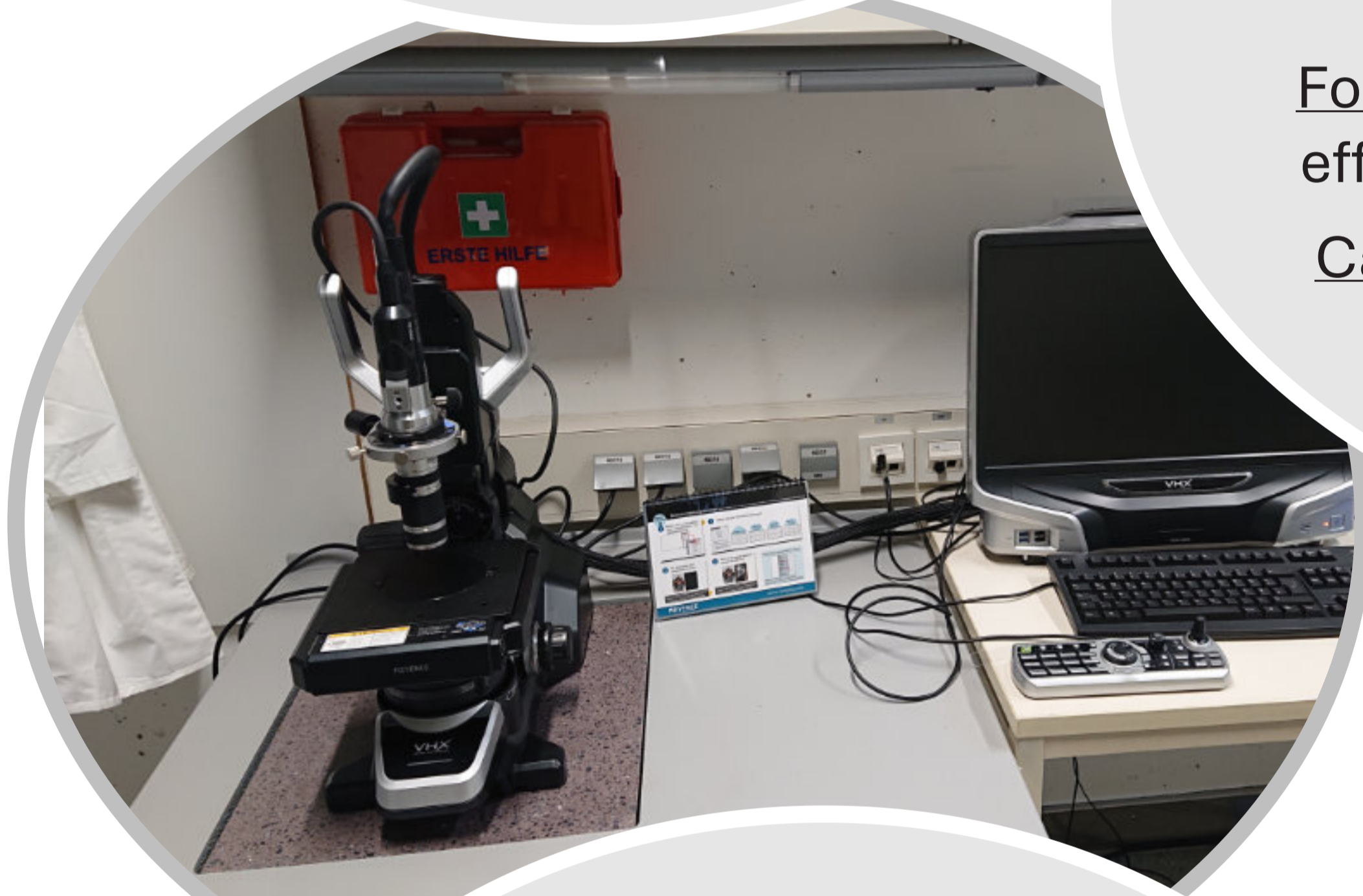
AquaEcoLab

Experimental Facility

*Versatile laboratory platform for
experimental research across trophic levels
and aquatic organism groups*

Focus: controlled experiments – multi-
species systems – aquatic ecology

Capabilities: recirculating aquaculture
systems – temperature-controlled
environments – flexible
experimental setups



HYTEC Experimental Channels

*Semi-natural experimental channels for
investigating hydromorphological and
ecological processes*

Focus: flow dynamics – temperature
effects – fish/invertebrate behaviour

Capabilities: outdoor experimental
channels – controlled flow &
temperature – ecohydraulic
experiments



Wasser Cluster Lunz



Focus: catchment dynamics – lake-
stream interactions – long-term
ecosystem change

Capabilities: part of ERICs eLTER
and DANUBIUS-RI



Keyence VHX-5000 Digital Microscope

*Advanced digital microscopy for detailed
analysis of biological and material structures*

Focus: high-resolution imaging –
multi-scale analysis –
structural detail

Capabilities: focus stacking – flexible
magnification – quantitative
image analysis



PIT-Tag Antenna Network

*High-resolution monitoring of individual fish
movement and population connectivity in the
Danube and its tributaries*

Focus: fish movement – migration
dynamics – population connectivity

Capabilities: large-scale antenna network
– continuous individual tracking –
long-term monitoring

Virtual Research Infrastructures

*Providing FAIR data platforms, virtual research
environments and digital training to support
freshwater science, biodiversity assessment and
ecosystem restoration*

Focus: open science – data integration –
capacity building

Capabilities: FAIR data access – virtual
research environments – digital
training & knowledge transfer



Future?

Molecular Laboratory

*State-of-the-art freshwater biodiversity
assessment for ecological and
applied analyses*

Focus: detection of freshwater biota –
species delimitation – uncovering biodiversity

Capabilities: to be developed!
environmental DNA extraction – HMWDNA
extraction – target locus/
WG amplification