

Ecosystem stations within the Czech Carbon Observation System (CzeCOS) serve for long-term observation of greenhouse gases and energy fluxes between ecosystems and the atmosphere in regional and international contexts.

The goal is to understand the ecophysiological processes within different ecosystems in response to different environmental conditions and under future climate.



	E [m a.s.l.]	Ta* [°C]	P* [mm]	Age [years]	h [m]	h EC [m]	EC data since
LNZ	155	9.6	540	111	27	44.0	2015
BKF	875	6.5	1246	35	17	20.5	2005
TRE	426	7.7	607	N/A	1	2.5	2006
STI	550	8.5	762	113	31	44.0	2010
RAJ	625	7.8	679	111	33	41.0	2012
BKG	860	6.5	1246	N/A	N/A	1.5	2005
KRP	545	8.0	652	N/A	N/A	2.6	2012
DOM	540	7.2	609	15	2	3.3	2011

E – elevation, Ta – air temperature, P – precipitation, Age (2016), h – mean canopy height (2016), h EC - EC measurement height (2016), \* long-term annual averages and totals: LNZ 1961-2016, BKF, BKG 1998-2016, TRE 1977-2015, STI 2010-2016, RAJ 1975-2016, KRP 1988-2016, DOM 1981-2010

2017  
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## Lanžhot, LNZ: Floodplain forest



- Hard-wood floodplain forest with semi-natural tree species composition characterized by rich biodiversity
- Proposed as ICOS class 1, Fluxnet site
- **Tree species:** European hornbeam (*Carpinus betulus*), Narrow-leaved ash (*Fraxinus angustifolia*), English oak (*Quercus robur*)
- **Herbal layer and understory:** *Allium ursinum*, *Anemone ranunculoides*, *Lathyrus vernus*, *Galium odoratum*, *Carex sylvatica*, *Acer campestre*
- **Soil type:** Eutric Humic Fluvisol, Haplic Fluvisol and Eutric Fluvisol
- **Slope:** 0°
- **GPS:** 48°40'54"N, 16°56'47"E

## Bílý Kříž, BKF: Norway spruce forest



- Managed secondary pure Norway spruce pole stand
- The oldest Ecosystem Station in the Czech Republic
- Proposed as ICOS class 2, Fluxnet site
- **Tree species:** Norway spruce (*Picea abies*)
- **Understory:** *Vaccinium myrtillus*
- **Soil type:** Haplic and Entic Podzol
- **Slope and exposition:** 13° SSW
- **GPS:** 49°30'01"N, 18°32'13"E

## Mokré Louky, TRE: Wetland



- Temperate „Wet Meadows“ sedge-grass marsh situated in the inundation area of a large human-made lake occasionally flooded
- Proposed as ICOS assoc. site, Fluxnet site, Czech LTER site
- **Main species:** *Carex acuta*, *Phalaris arundinacea*, *Glyceria maxima*
- **Soil type:** Histosol
- **Slope:** 0°
- **GPS:** 49°01.48'N, 14°46.22'E

## Štítná nad Vláří, STI: Beech forest



- Managed even-aged European mature beech stand with tree species composition close to natural
- **Tree species:** European beech (*Fagus sylvatica*)
- **Herbal layer:** *Dentaria bulbifera*, *Asperula odorata*, *Viola reichenbachiana*, *Oxalis acetosella*, *Maianthemum bifolium*
- **Soil type:** Eutric Cambisol
- **Slope and exposition:** 10° WSW
- **GPS:** 49°02'10"N, 17°58'12"E

## Rájec, RAJ: Norway spruce forest



- Managed secondary pure Norway spruce mature stand growing on the nether border of its natural range of ecological occurrence
- **Tree species:** Norway spruce (*Picea abies*)
- **Understory:** *Vaccinium myrtillus*
- **Soil type:** Modal Cambisol oligotrophic
- **Slope and exposition:** 5° NEE
- **GPS:** 49°26'37"N, 16°41'47"E

## Bílý Kříž, BKG: Mountain grassland



- Extensively managed mountain grassland of higher altitudinal zone
- Fluxnet site
- **Main species:** *Nardus stricta*, *Festuca rubra*, *Holcus mollis*, *Rumex acetosa*, *Hypericum maculatum*, *Achillea millefolium*
- **Soil type:** Gleyic Luvisol
- **Slope and exposition:** 9° ESE
- **GPS:** 49°29'40"N, 18°32'34"E

## Křešín u Pacova, KRP: Agroecosystem



- Intensive agricultural field of different crops with long-term rotation
- Fluxnet site
- 10 years crop rotation: wheat, rape, potatoes, maize, barley, rye, trefoil-grass mixture
- **Soil type:** Haplic Cambisol
- **Slope and exposition:** 2° NE
- **GPS:** 49°34'24"N, 15°04'44"E

## Domanínek, DOM: Poplar plantation



- Plantation for bio-energy
- **Tree species:** hybrid poplar clone J-105 (*Populus nigra* × *Populus maximowiczii*)
- 8 years rotation length
- **Soil type:** Luvic Cambisol
- **Slope and exposition:** 3° E
- **GPS:** 49°31,25"N, 16°14,32"E