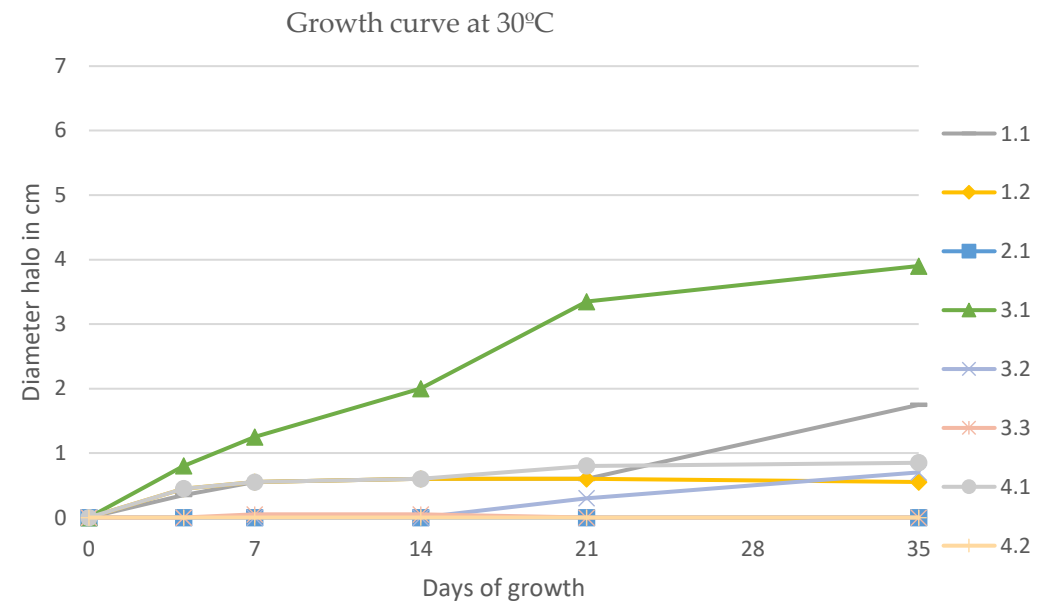
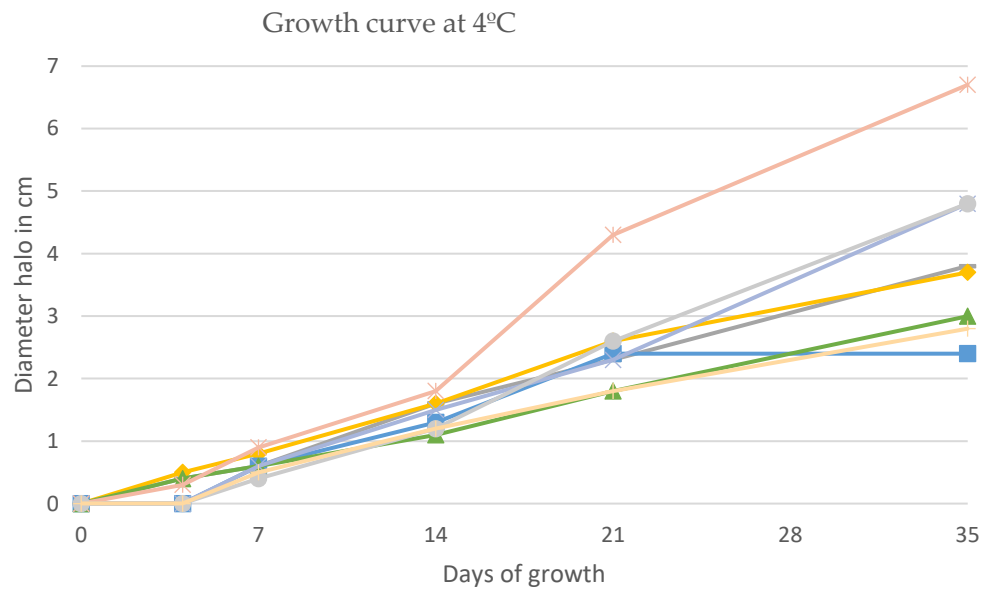
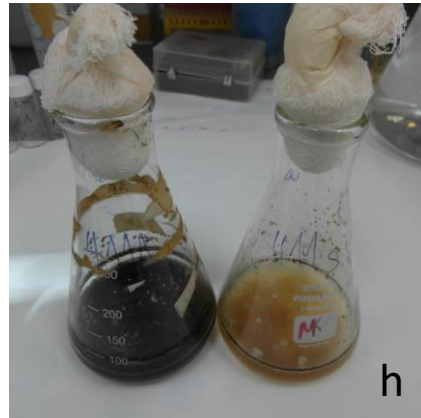
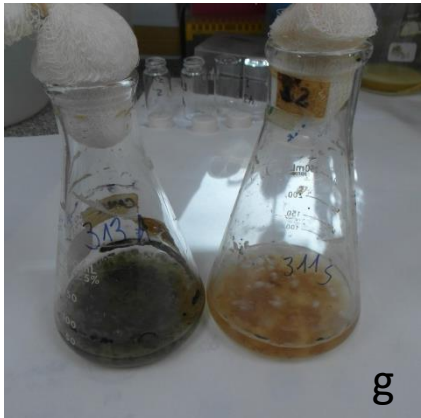
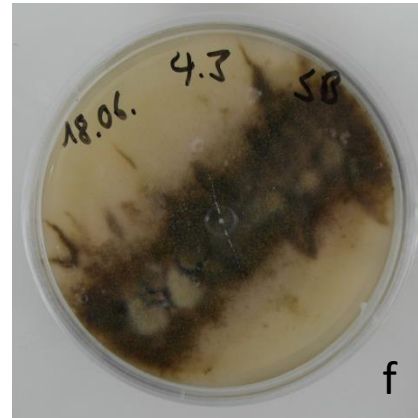
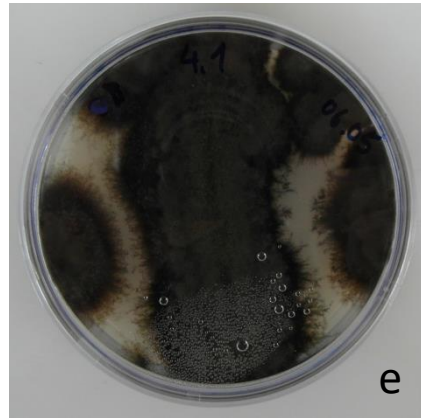
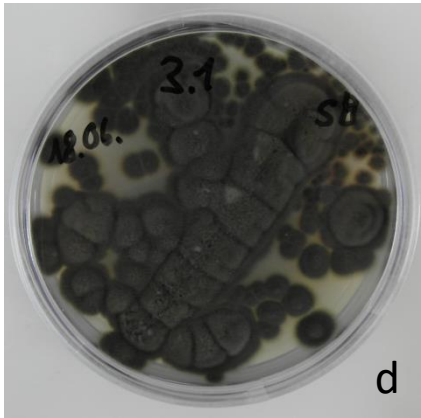
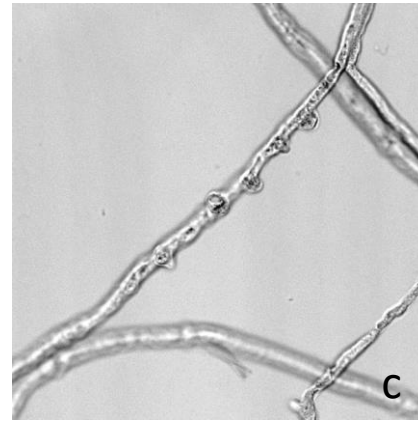
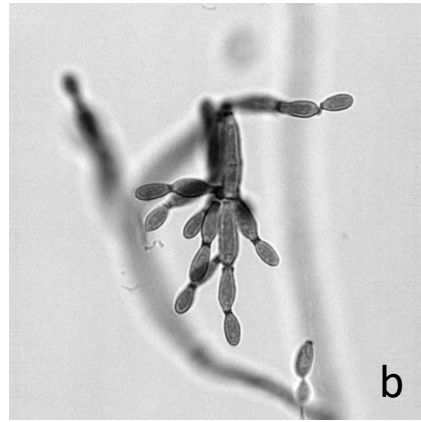
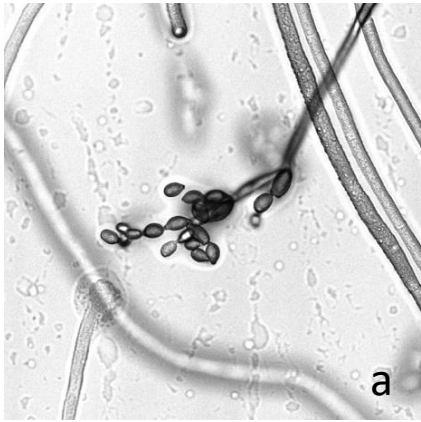


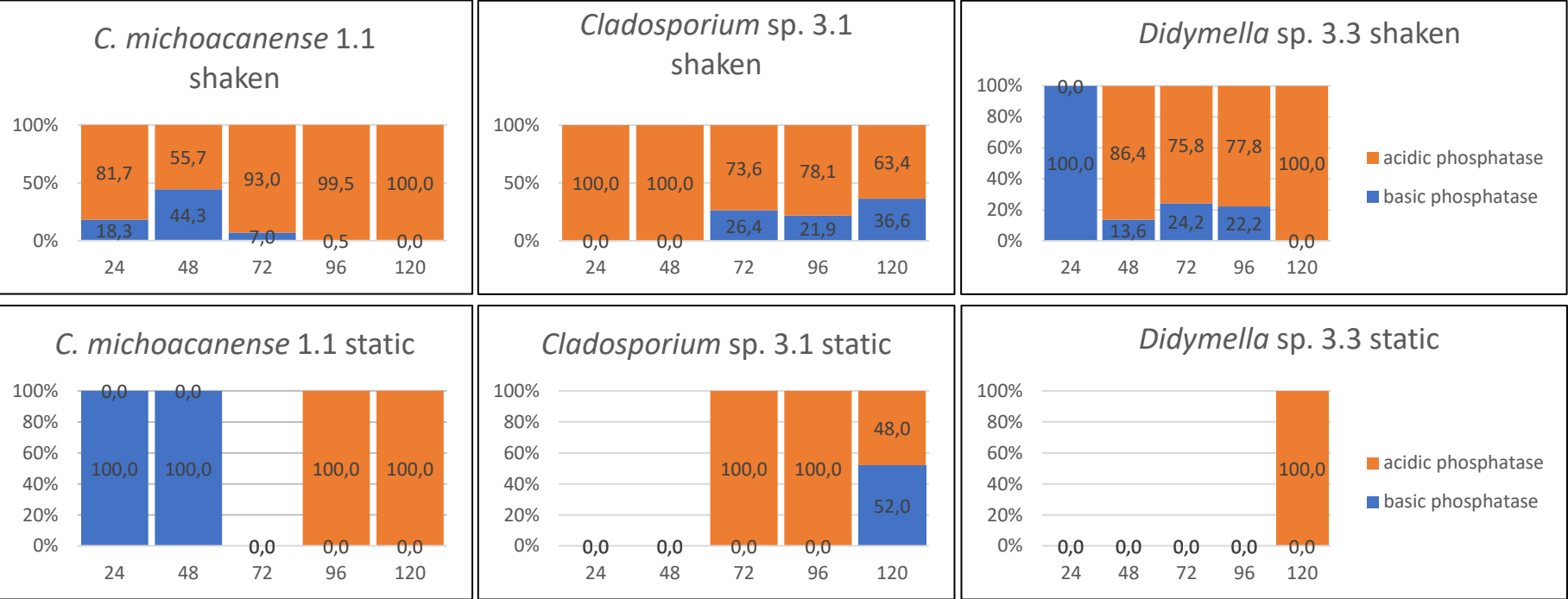
**Supplementary Figure S1:** Growth of 8 different isolated fungal strains from 4 different sampling sites after 4 and 35 days (D) at different temperatures.



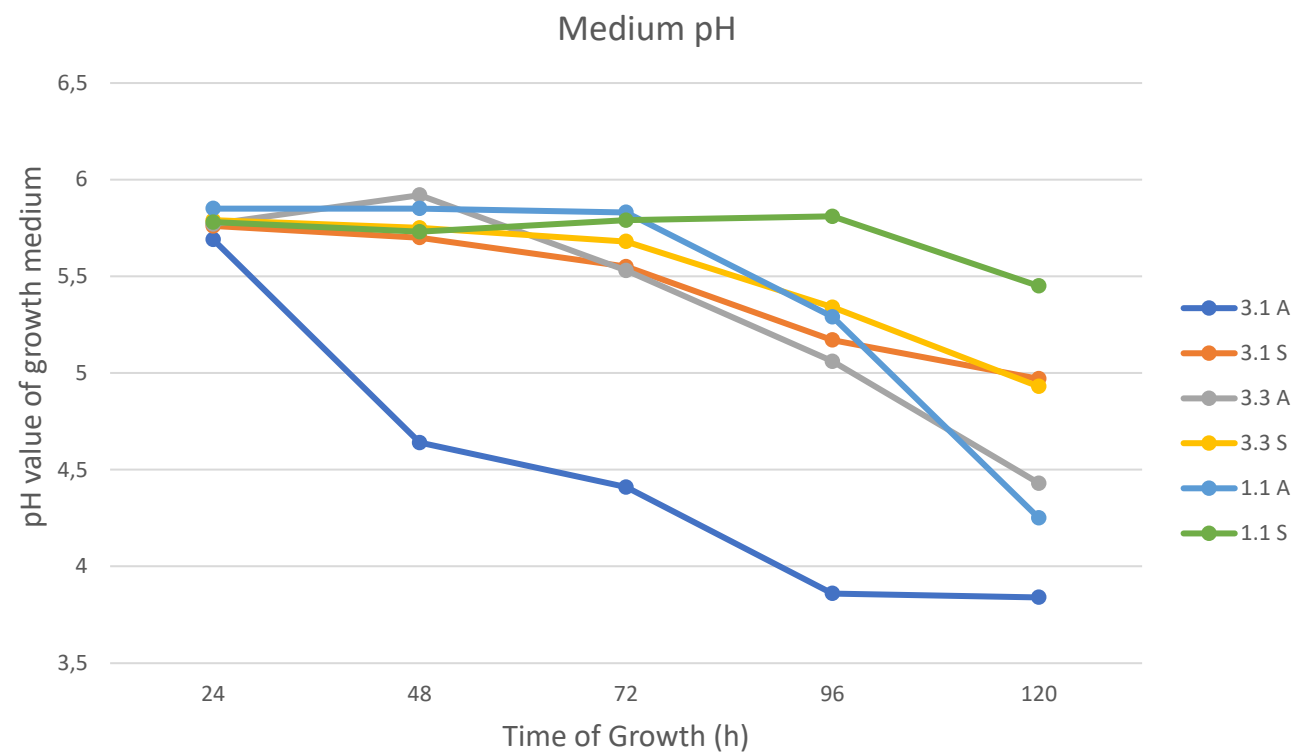
**Supplementary Figure S2.** Growth curves of isolated fungal strains at 4°C and 30°C.



**Supplementary Figure S3:** Selected and identified fungi, from left to right *Cladosporium michoacanense* (a, d, g), *Cladosporium* sp. (*cladosporioides* species complex)(b, e, h), *Didymella* sp. (c, f, i); top microscopy of sporangium and micelia (a-c), middle row cultures on Potato Dextrose Agar (d-f) and bottom row comparison of shaken culture versus static culture (g-i).



**Supplementary Figure S4:** Relative phosphate activity over time comparing acidic phosphatase versus alkaline phosphatase



**Supplementary Figure S5:** Development of growth medium pH over time in cultures under agitation (A) and static (S) conditions for strain 1.1, 3.1 and 3.3

**Supplementary Table S1:** Sampling site characteristics

<b>Sampling site</b>	<b>Coordinates</b>	<b>Altitude</b>	<b>Temperature (Ø)</b>	<b>Predominant vegetation</b>	<b>N° of chosen isolates</b>
1	Sº 78.701786; Wº 0.631899	3986	9.966	Poaceae. Asteraceae. Verbenaceae. Rosaceae	2
2	Sº 78.702426; Wº 0.631899	3998			1
3	Sº 78.706805; Wº 0.636392	4145	9.552	Poaceae. Apiaceae. Rosaceae	3
4	Sº 78.706972; Wº 0.63616	4149			2