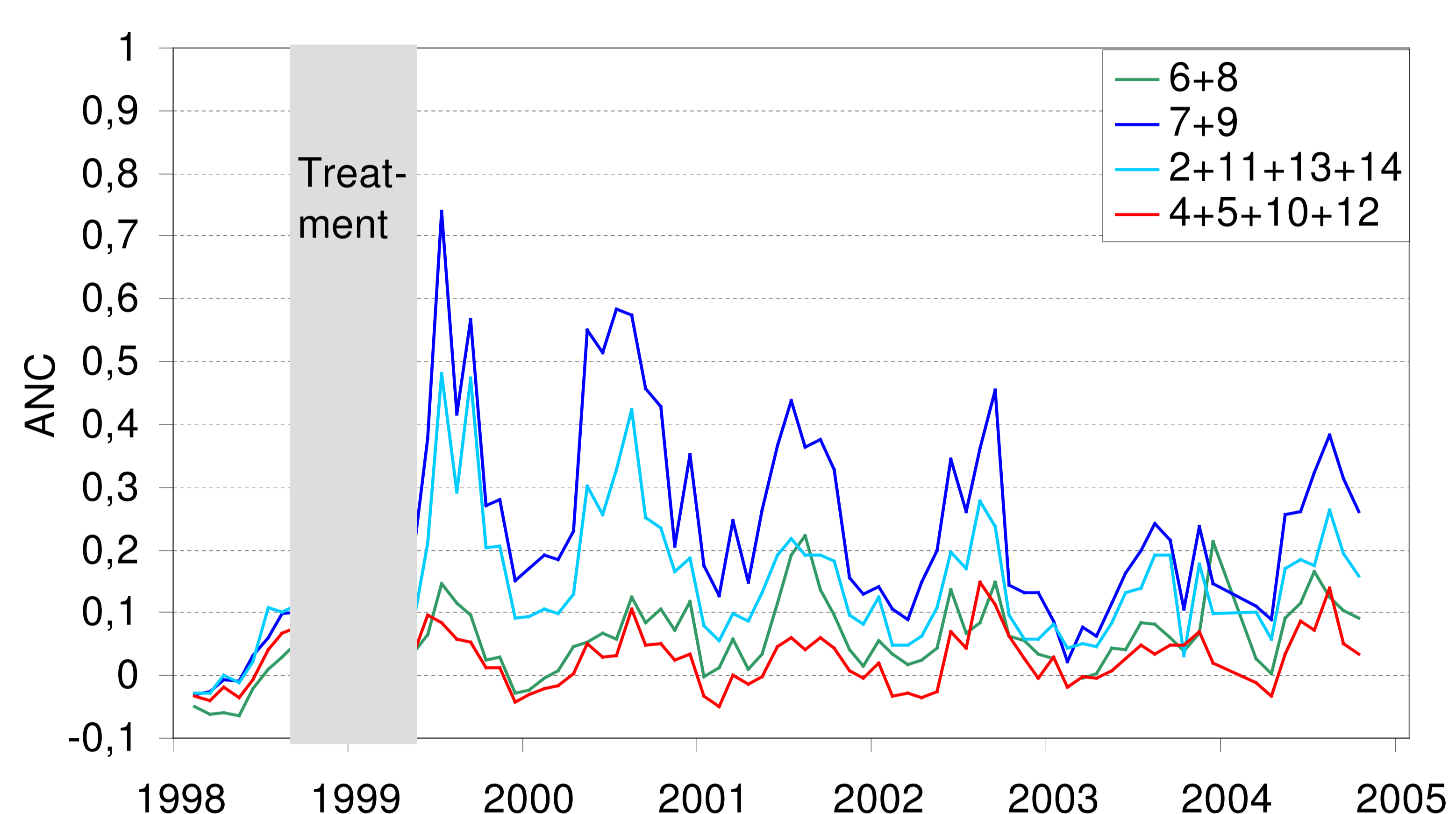
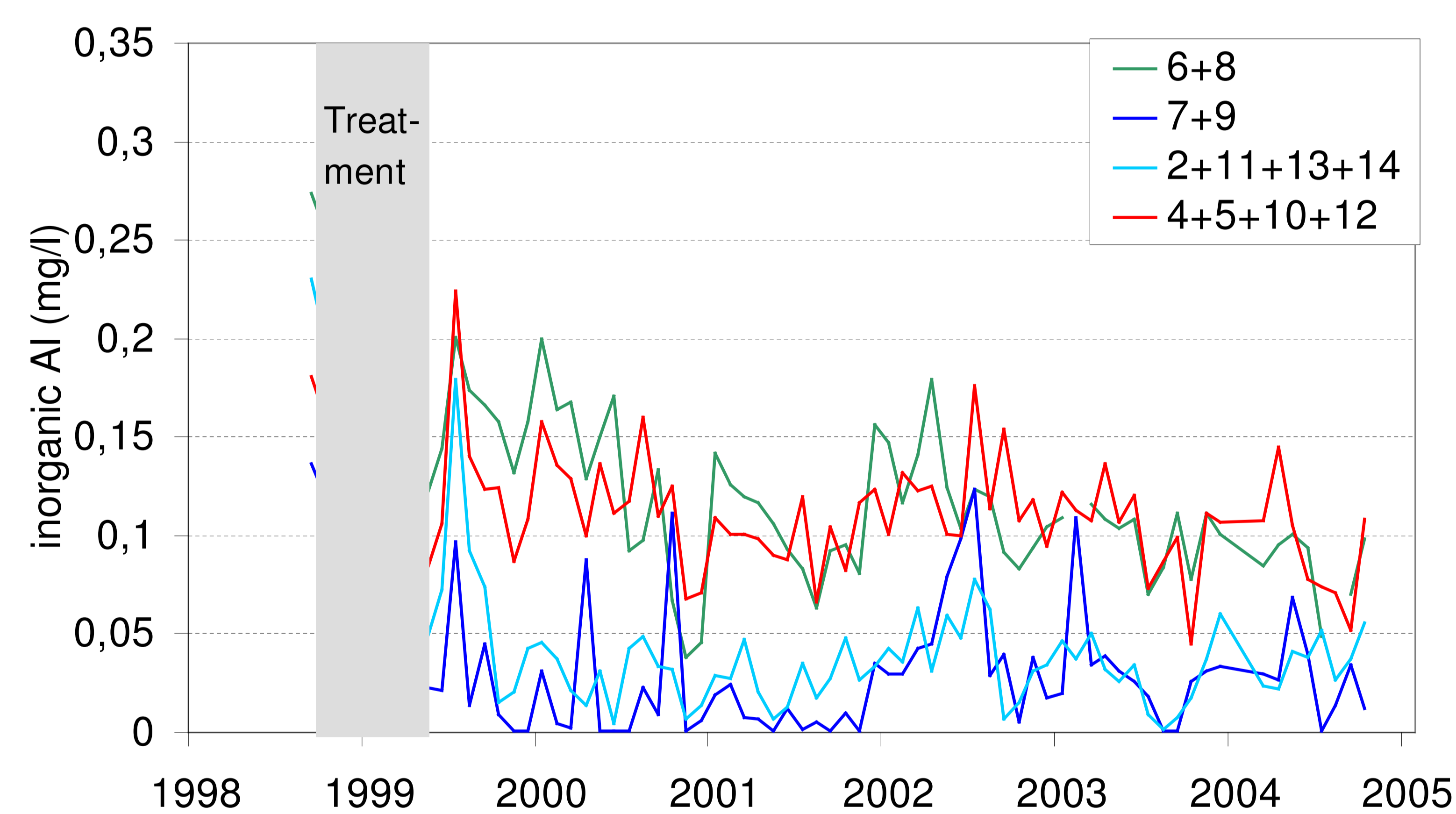
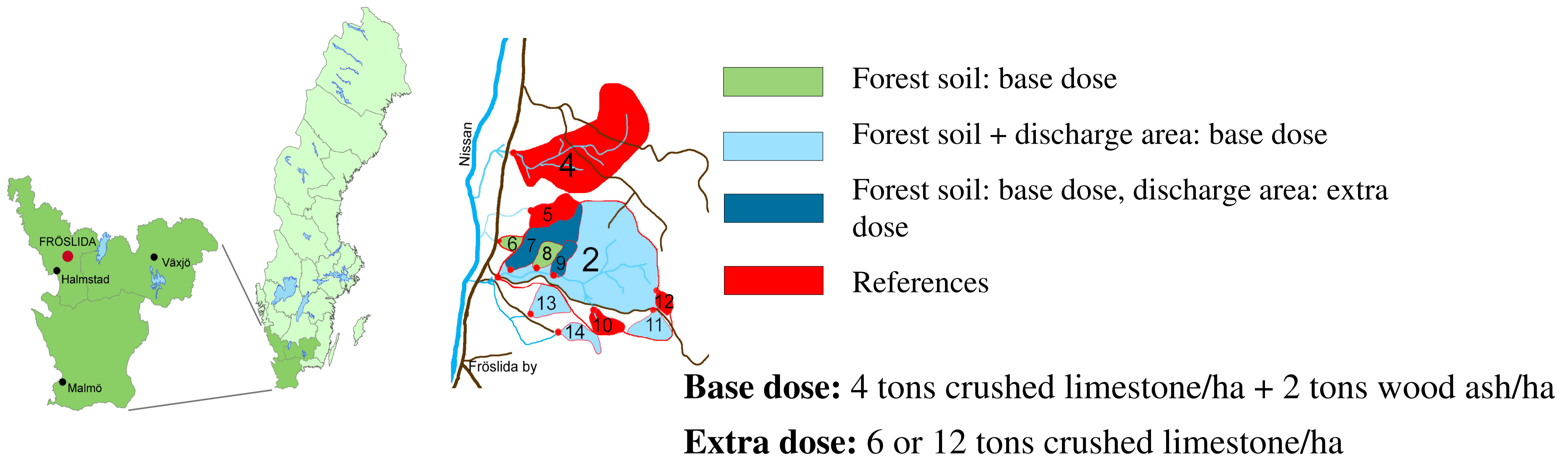


Liming of forest soils - recovery of acidified streams in forests

with an integrated concept for whole catchment liming



Improved fish water quality

The natural recovery of most Swedish acidified forest soils and surface waters are slow, despite decreased acid deposition. The strategy of combining forest soil and wetland liming and wood ash application has shown to have a fast and significant effect on soil water and stream water quality. Five years after treatment, pH, ANC and Ca is higher while Al_i is lower compared to references.

Brown trout is reproducing

For the first time in 40 years brown trout is reproducing thanks to higher pH and reduced amounts of inorganic aluminium.

Nitrogen leakage

A temporarily increased leakage could be found in runoff water from treated recharge areas. Compare to the leakage that occurs after clear-cutting it was only minor.

Discharge vs recharge areas

Treatment of discharge areas quickly neutralises runoff water in the short-run. Model calculations indicates that the effect of wetland treatments will have a duration of 15-20 years. The effects are dependant on the *dose* of lime on wetlands rather than the *area* of the treated wetland. Treatment of discharge areas, on the other hand, contributes gradually and long lasting once the wetland effect has ceased.