

## **1 Personal opinion and difficulties**

## **2 Article:**

Metabolic coupling between soil aerobic methanotrophs and denitrifiers in rice paddy fields

## **3 Abstract**

In rice paddy fields there is a lot of microbial denitrification, typically linked to oxidation of electron donors such as methane ( $CH_4$ ) in *anoxic* and *hypoxic* conditions.

Whether and how *aerobic* methane oxidation couples with denitrification in *anoxic* paddy fields is unknown.

## **4 Intro**

## **5 Methods**

$^{13}CH_4$ -DNA-stable isotope probing (SIP)

Microcosm experiments

$^{13}C$ -metabolome-assembled genomes and  $^{13}C$ -metabolomics

## **6 Results**

## **7 Replication**