

# Biofilm colonisation area calculation

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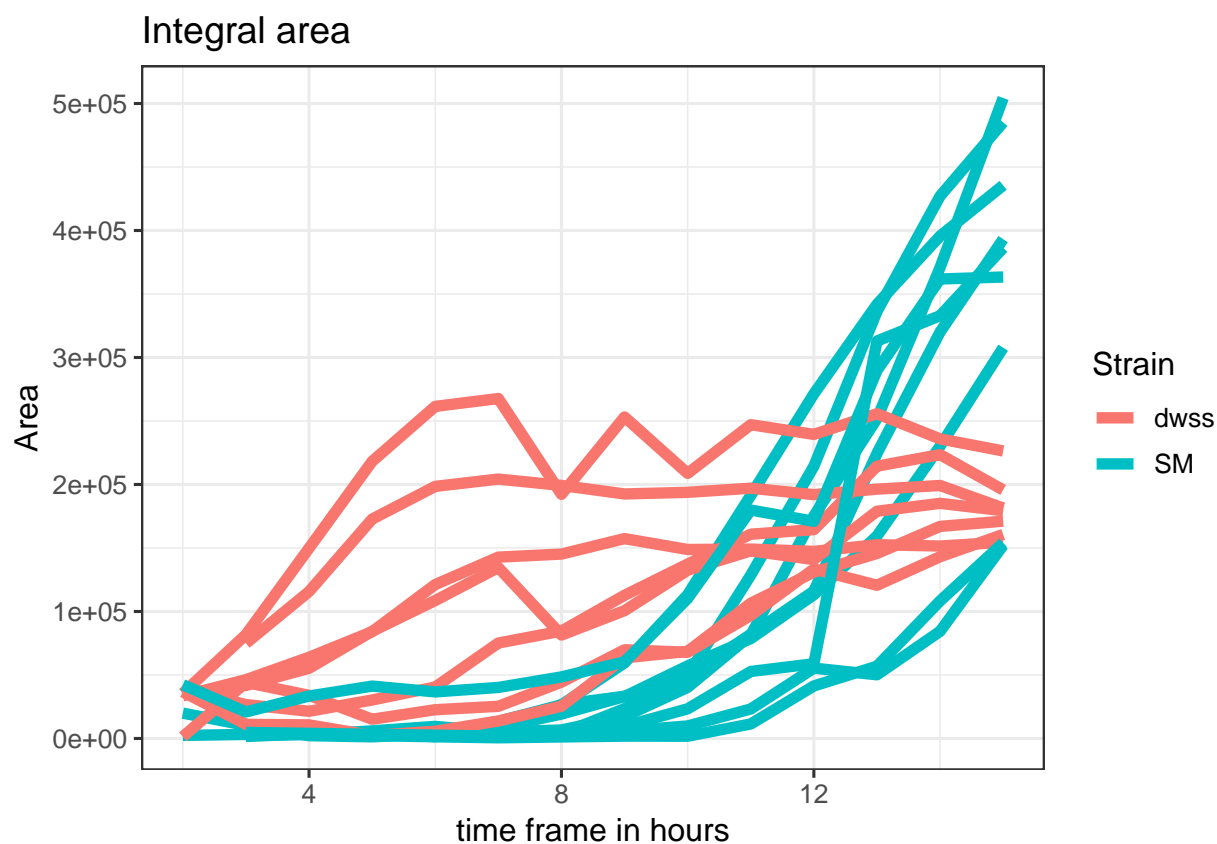
*5/16/2019*

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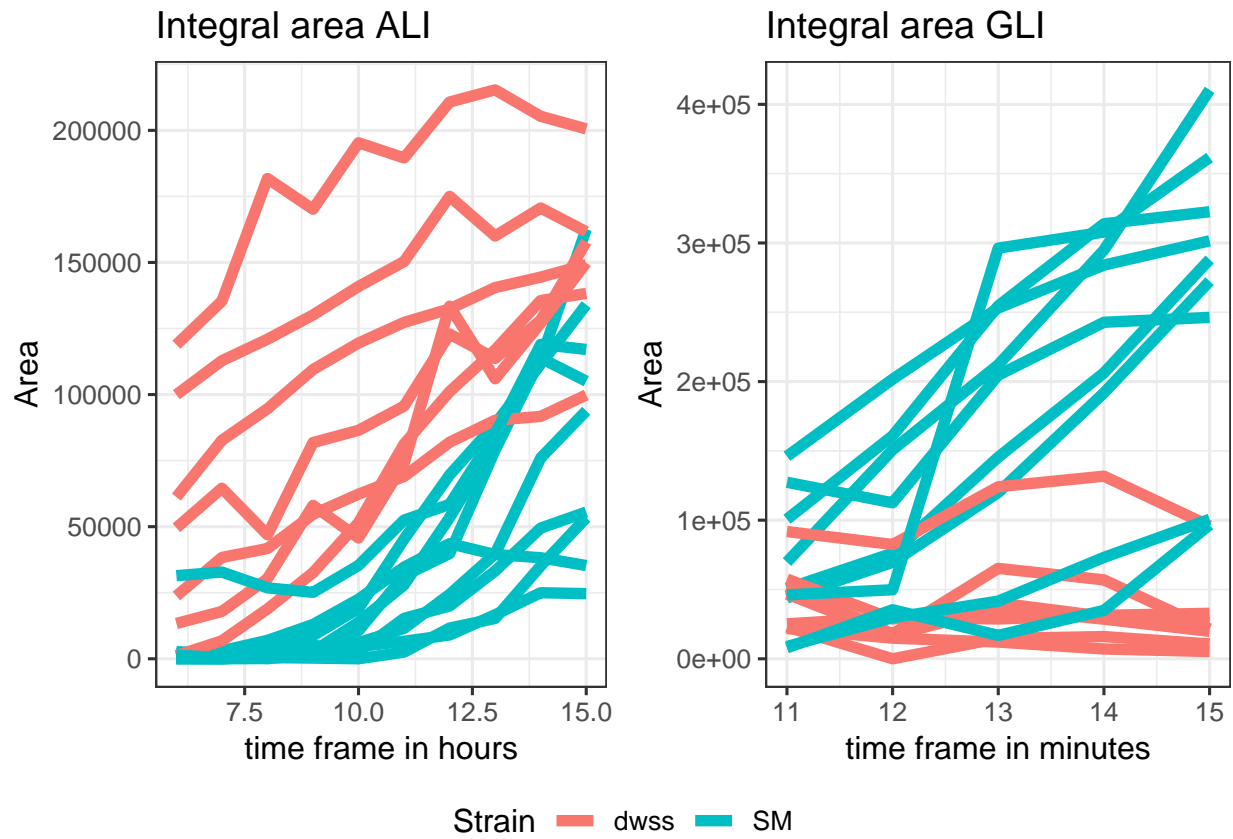
## Integral area

Integral area represent sum of the colonized pixel for each frame. Each frame represent one hour of experiment. Here we are interested in 15 first hours.



## Integral area ALI and GALI

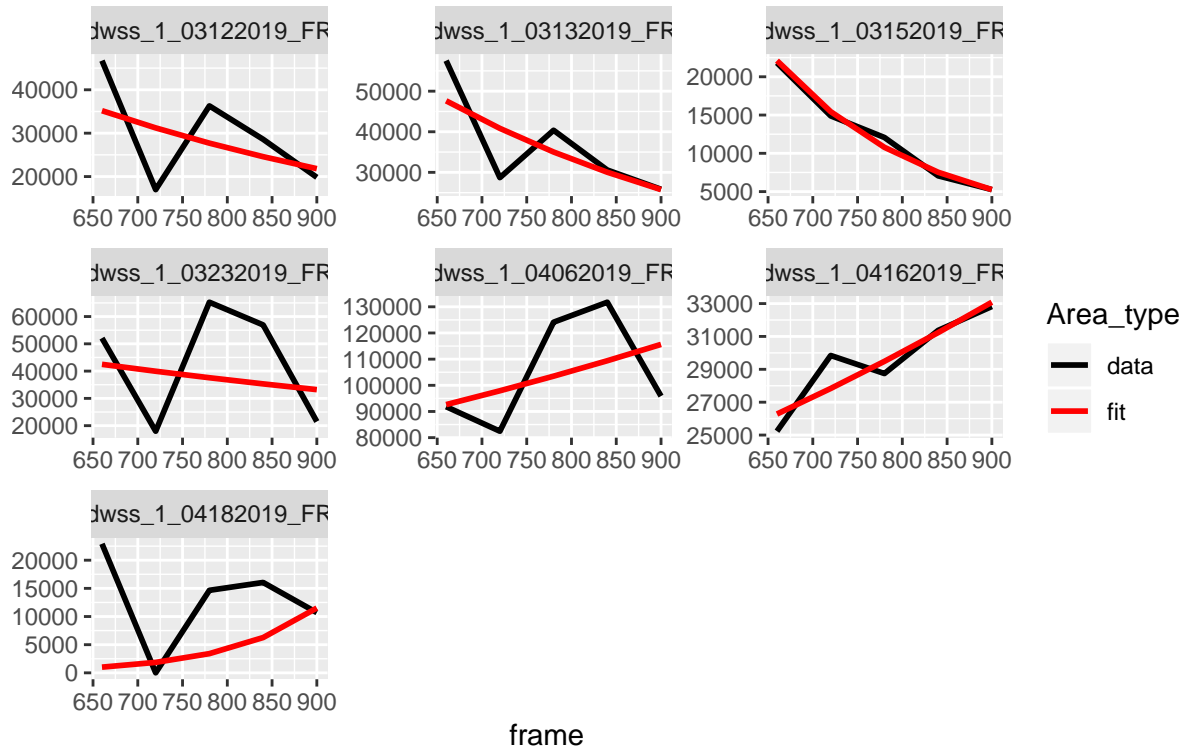
We cutted each image to the two parts: ALI part includes 200px (32mkm) layer counted from the ALI, and GLI part includes rest part of the image. The integral area per Strain experiment is shown below.



We fitted ALI and GALI separately by  $\text{Log}(\text{Area}) \sim A + B \cdot \text{frame}$ .

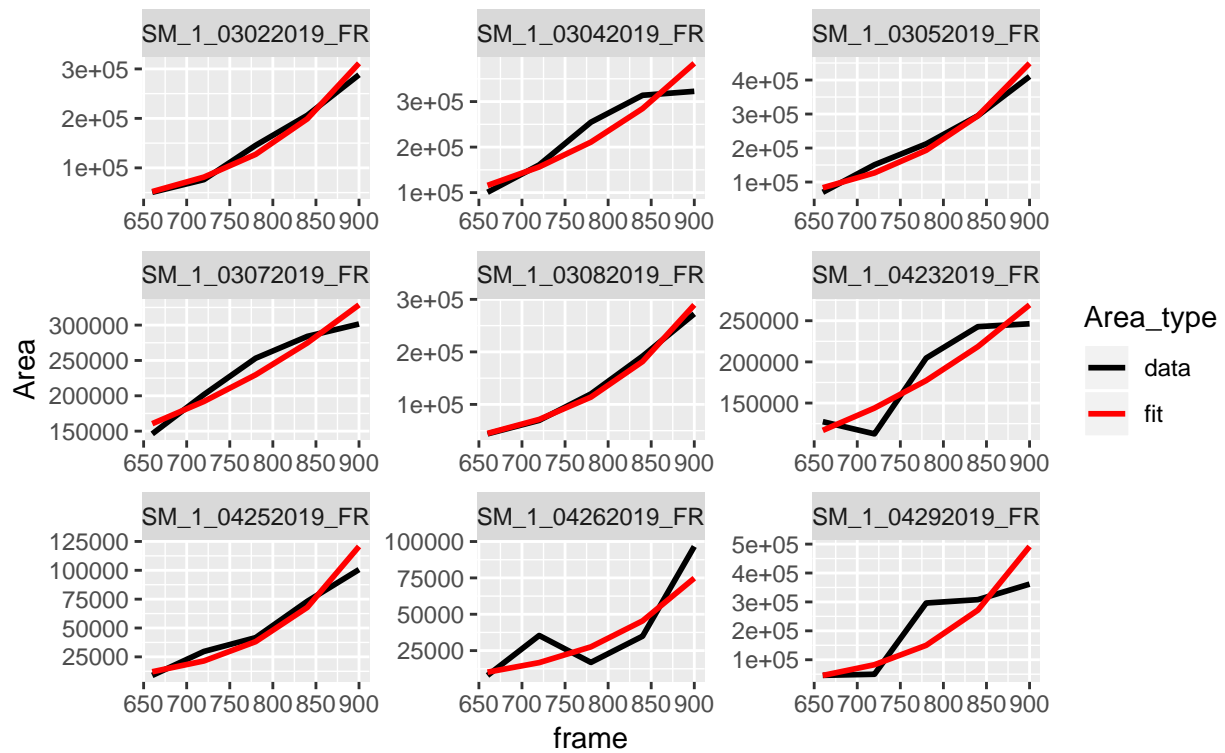
## Integral Area GLI

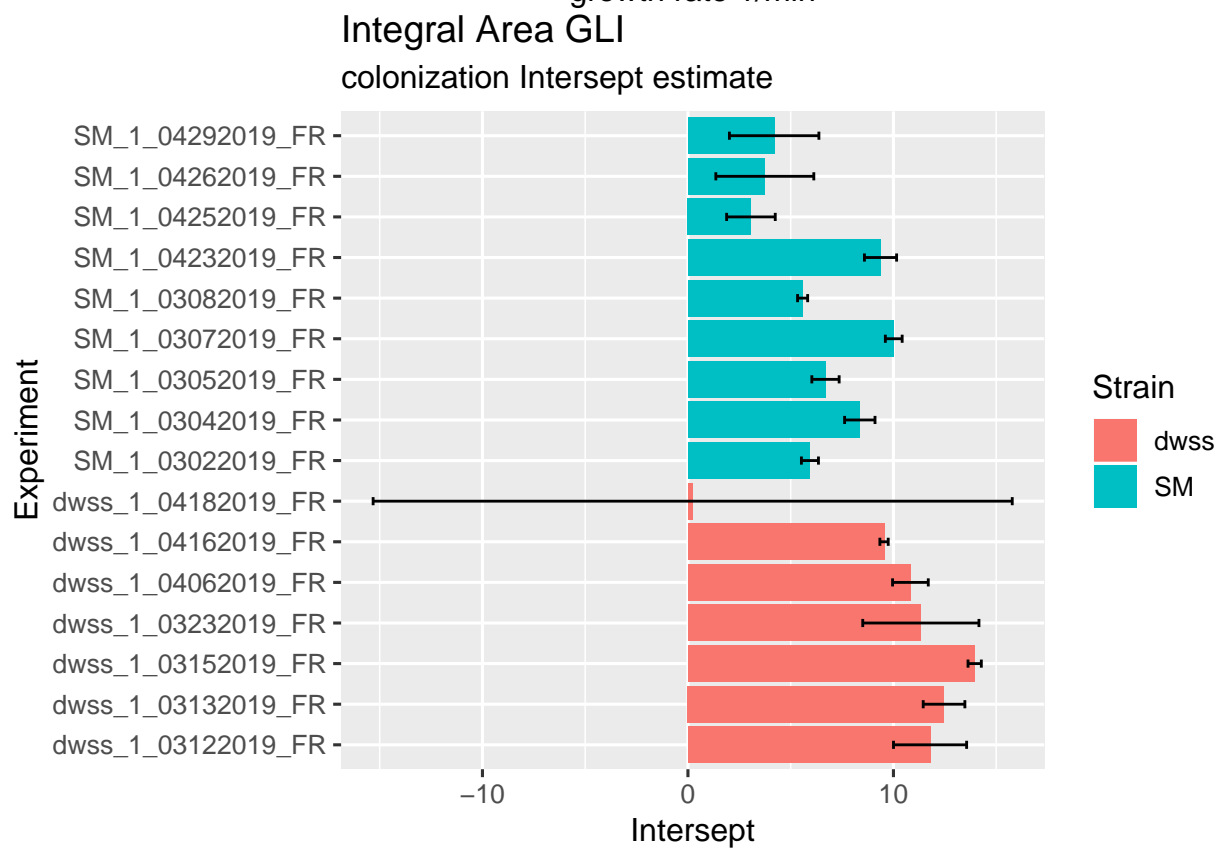
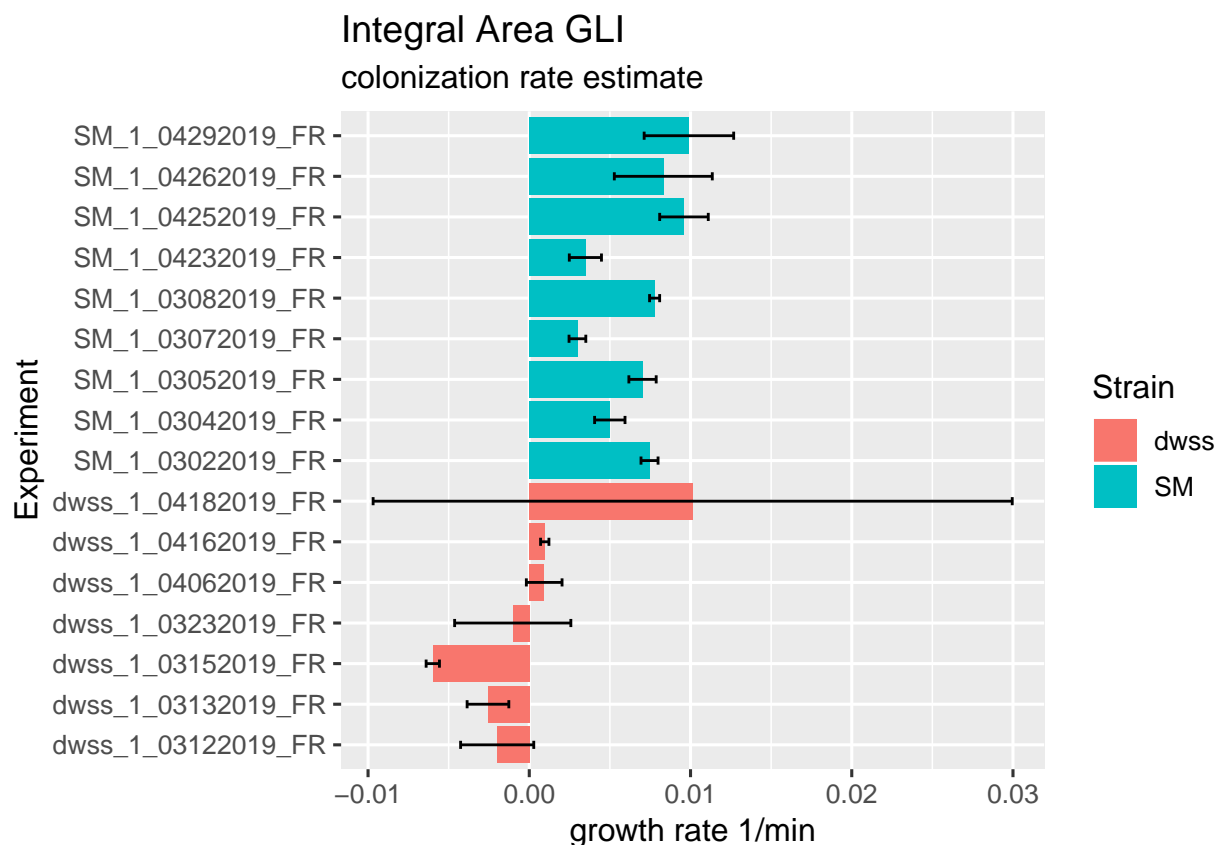
dwss

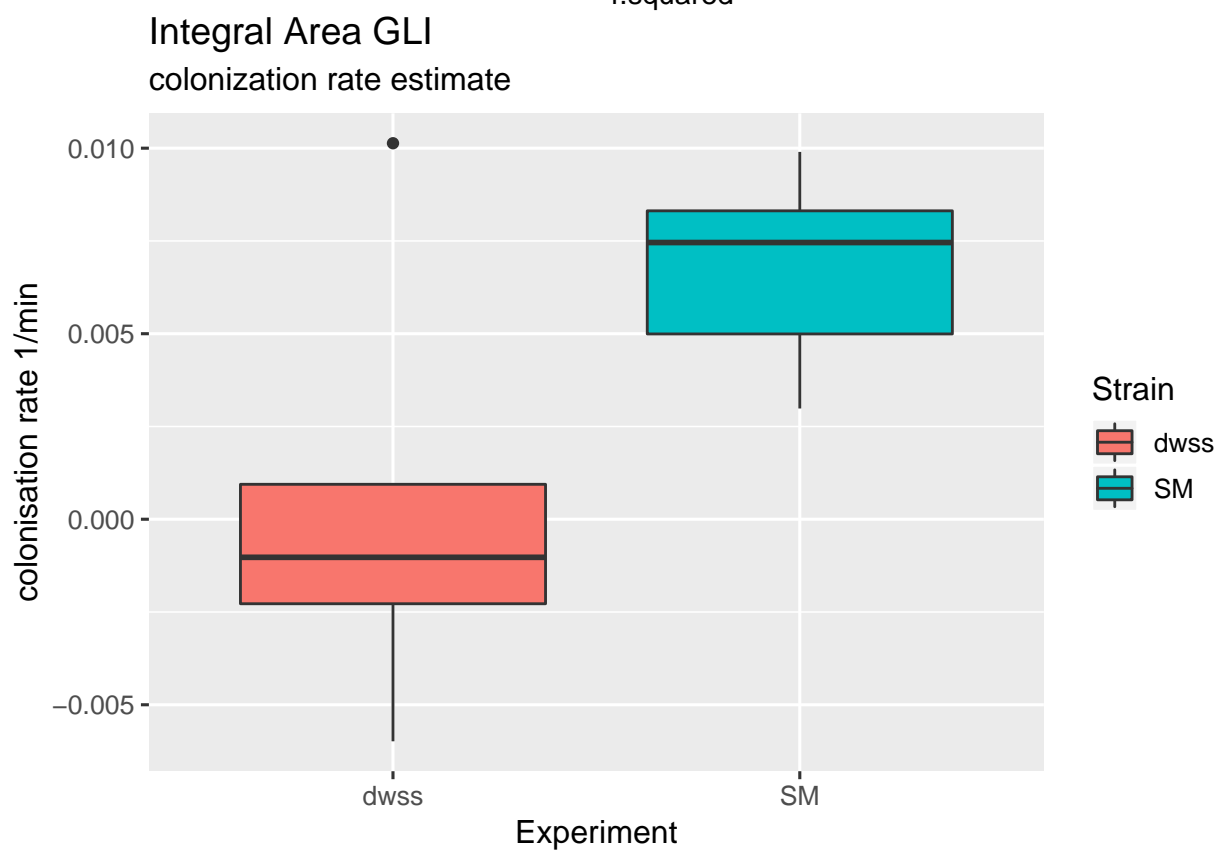
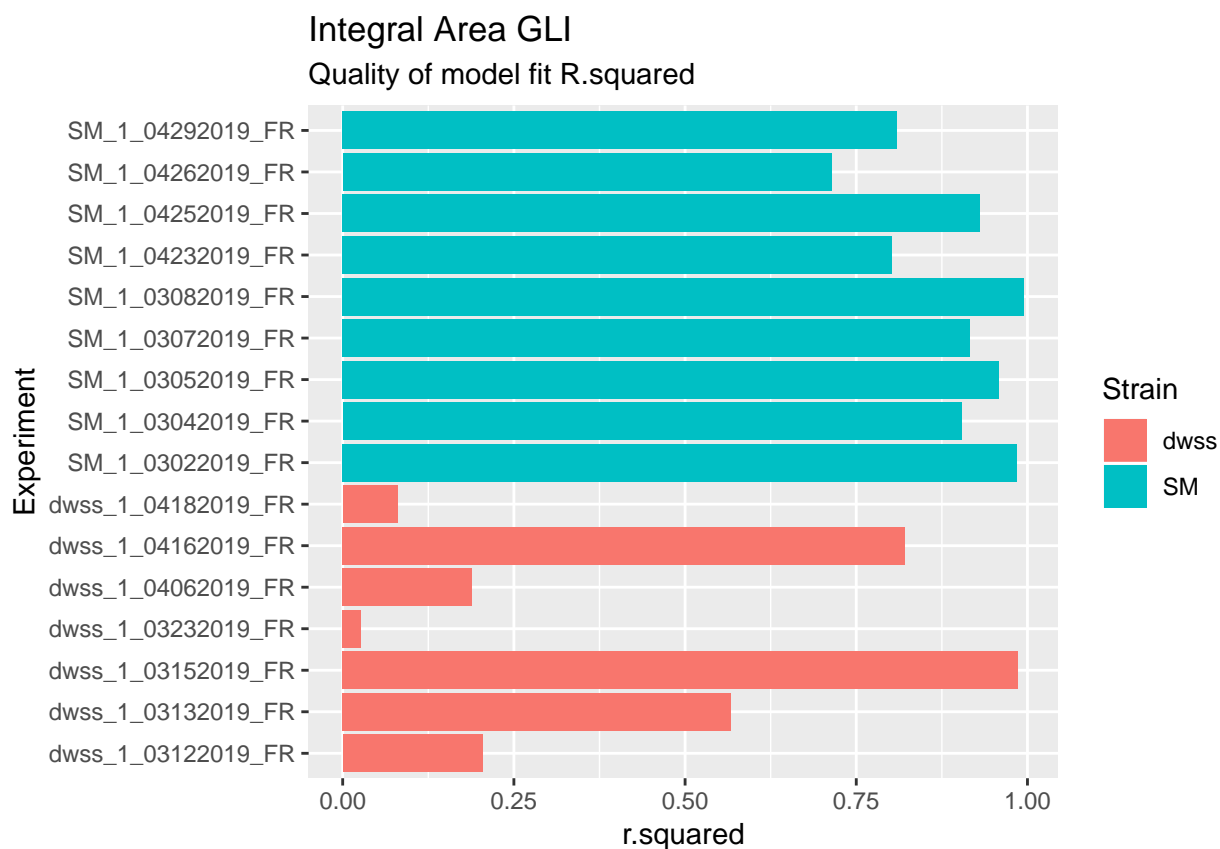


## Integral Area GLI

SM

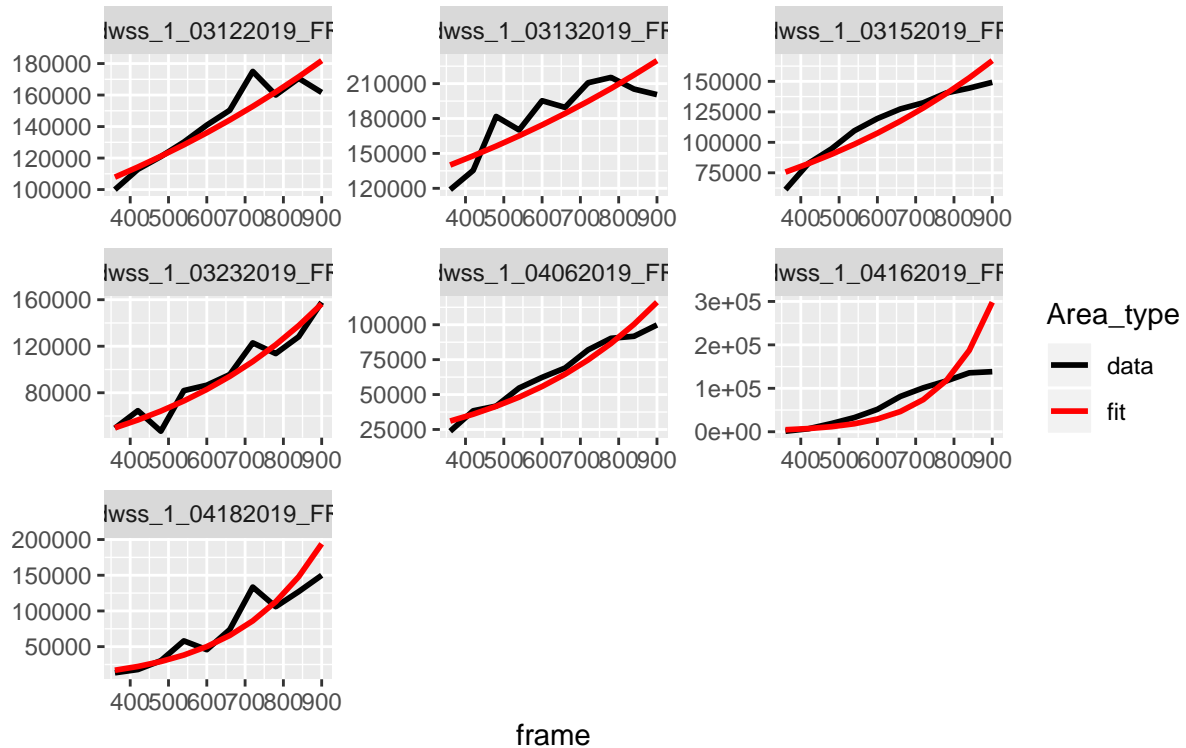






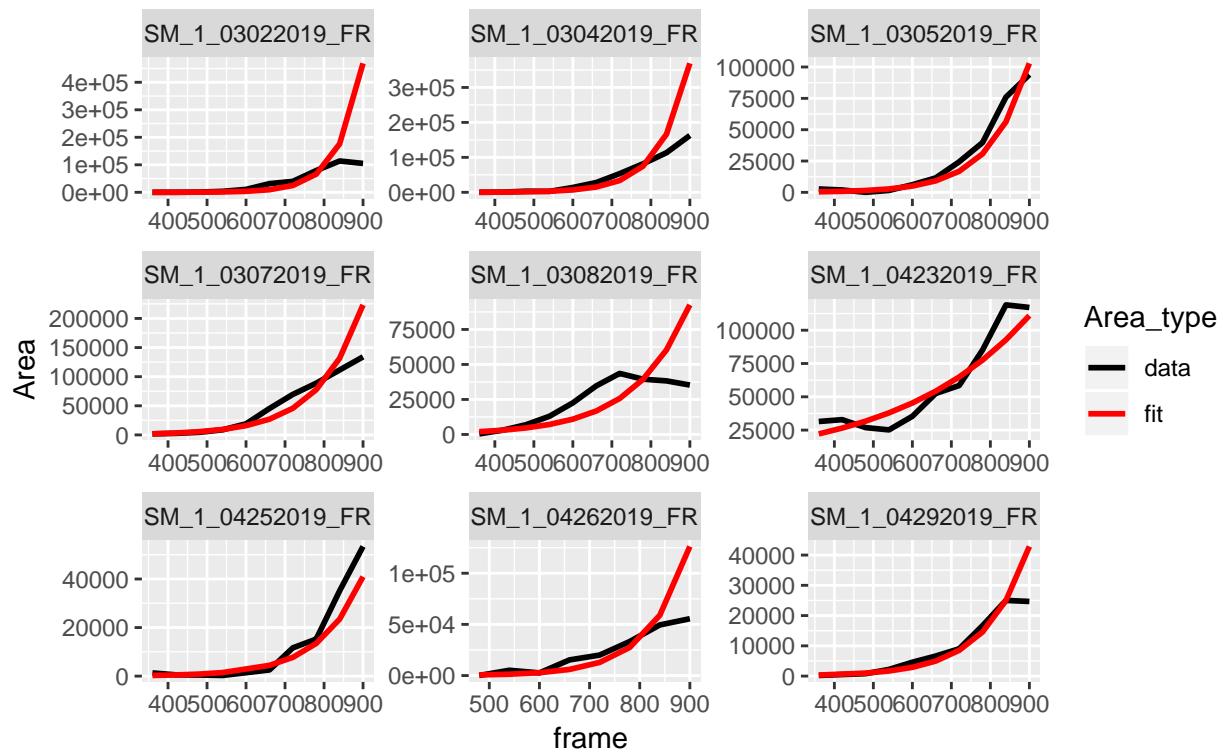
## Integral Area ALI

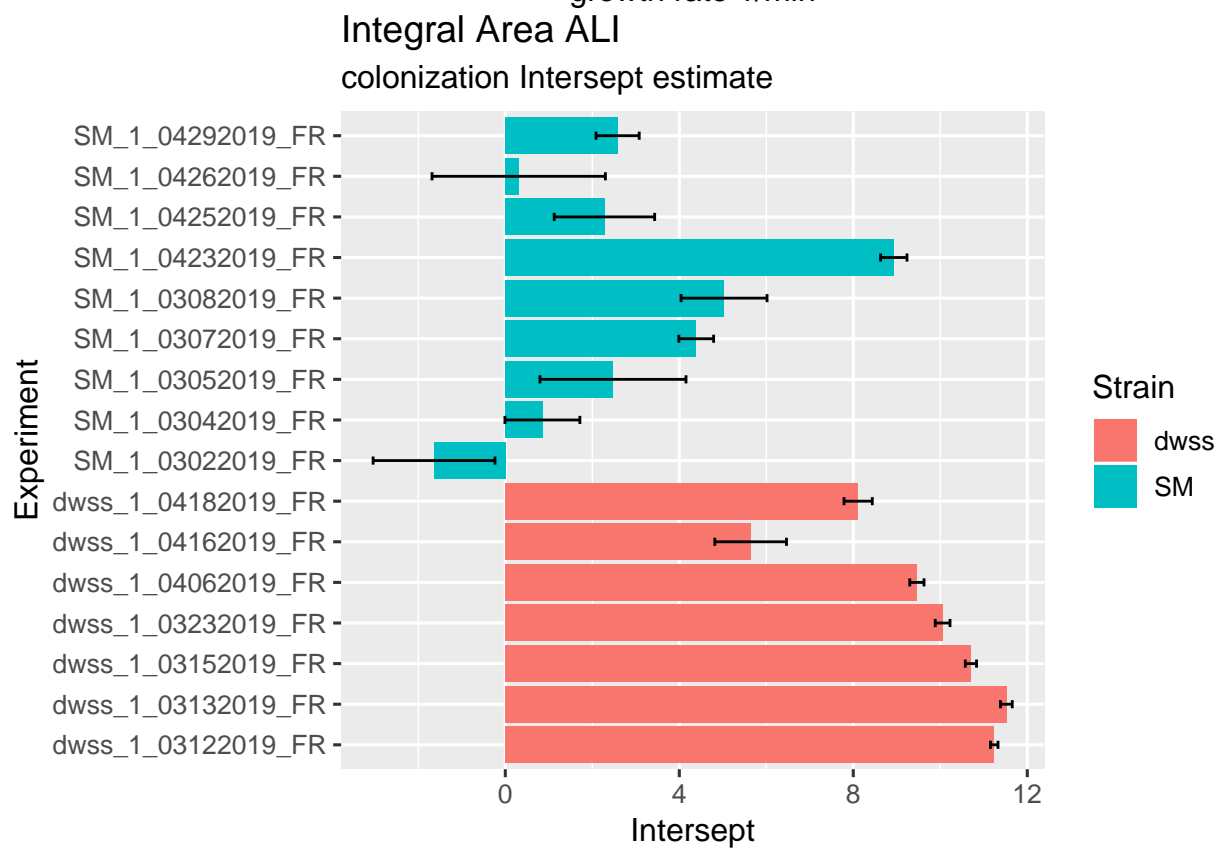
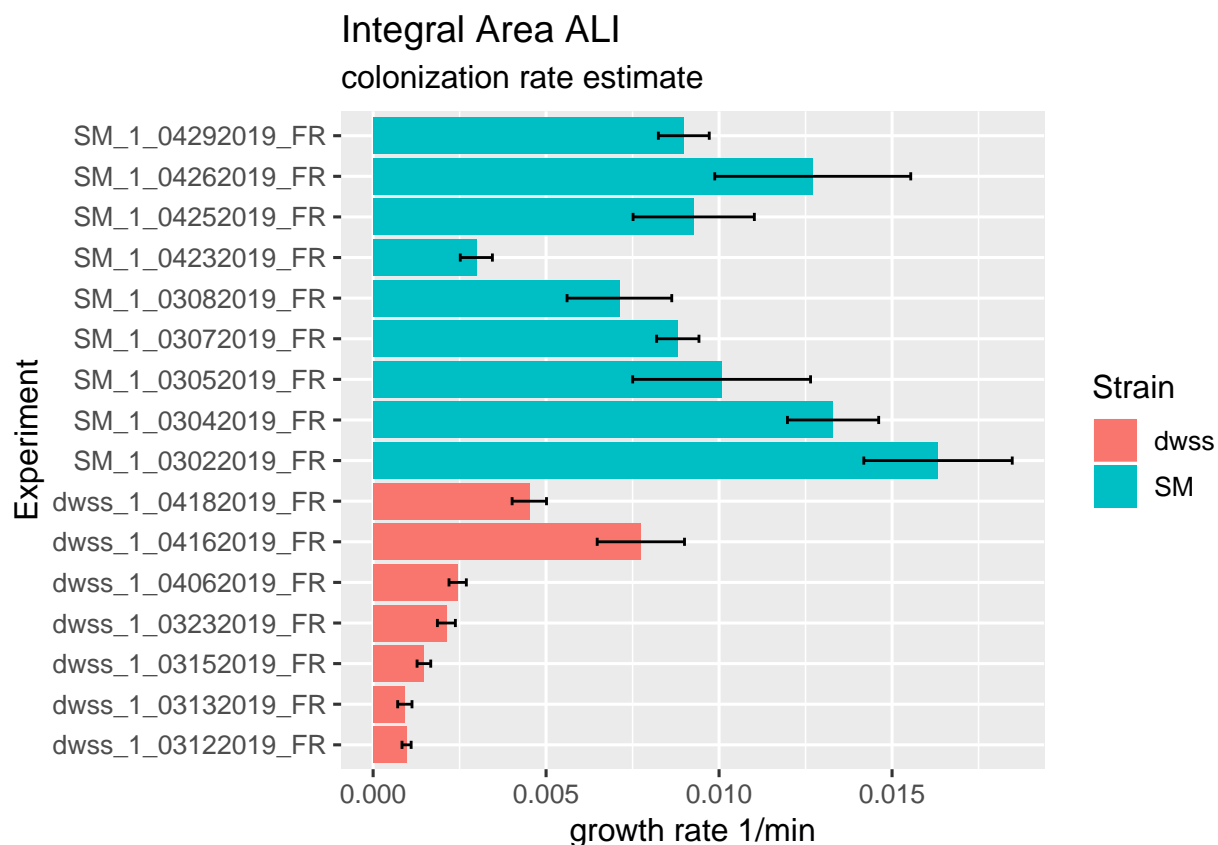
dwss

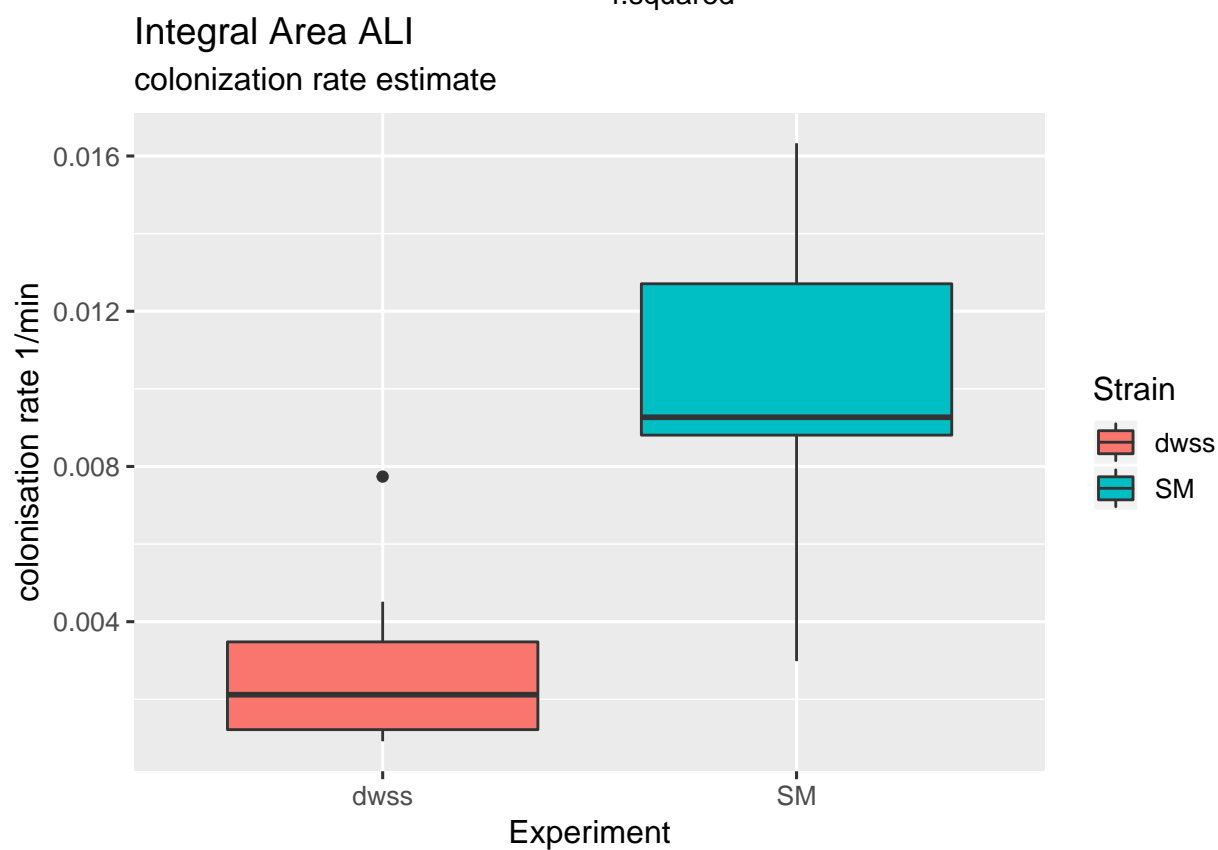
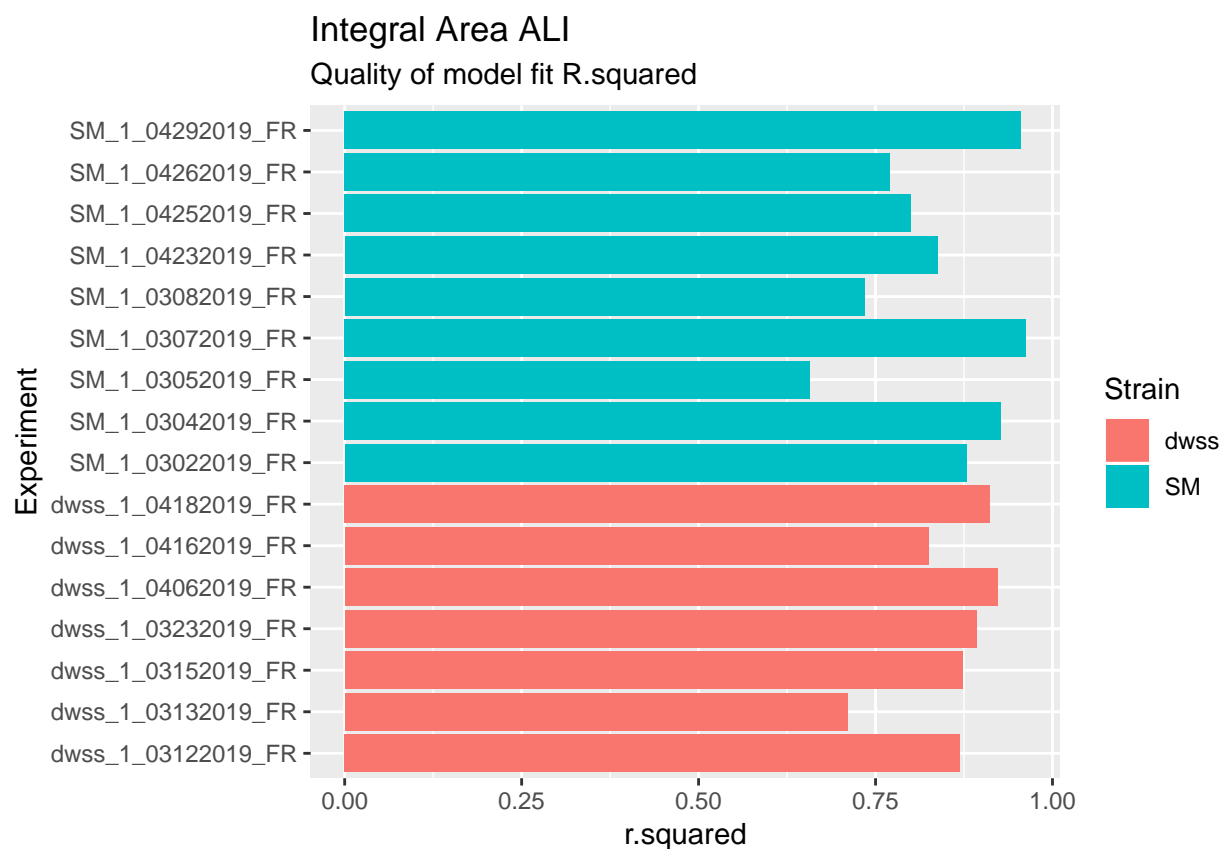


## Integral Area ALI

SM











### Colonisation area per Layer

LayerSize=32 mkm (200px)

