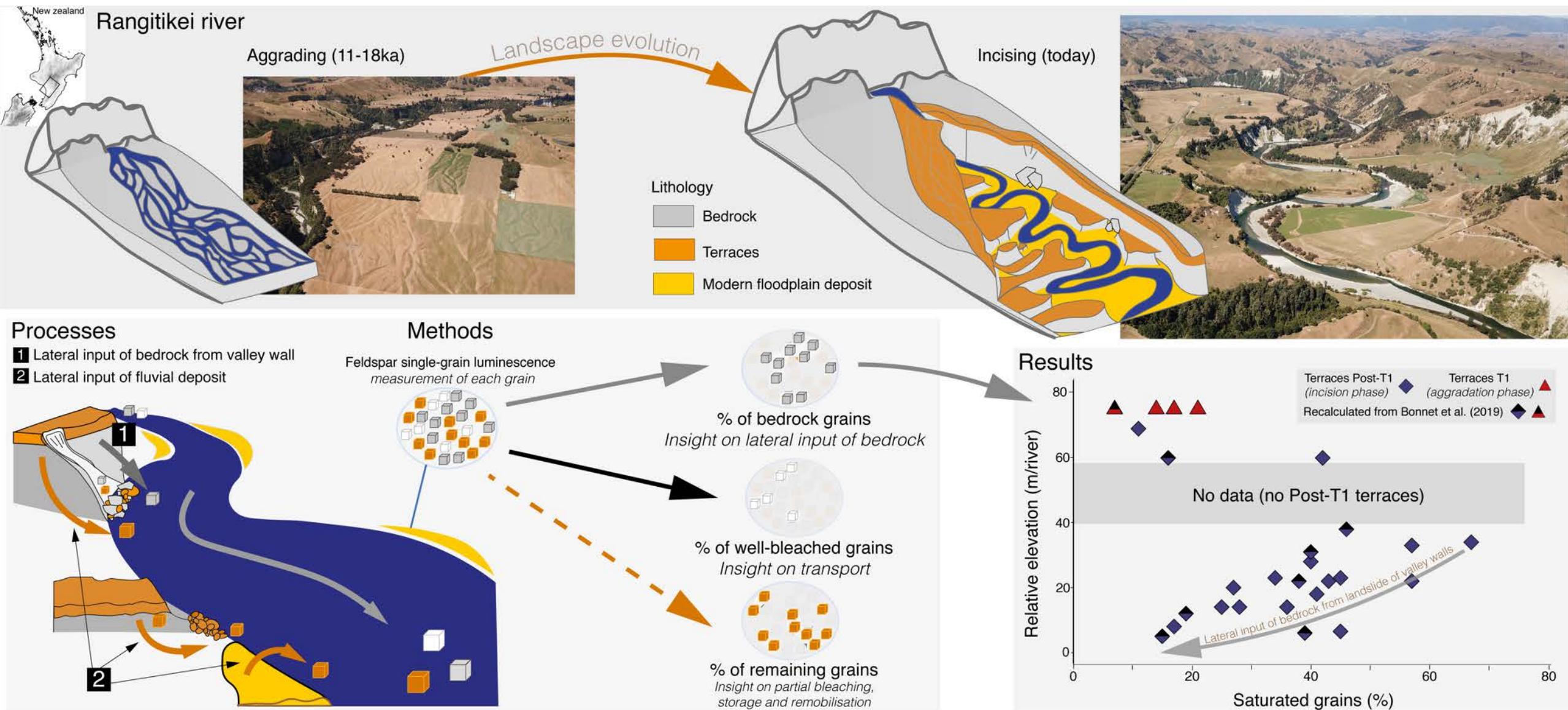
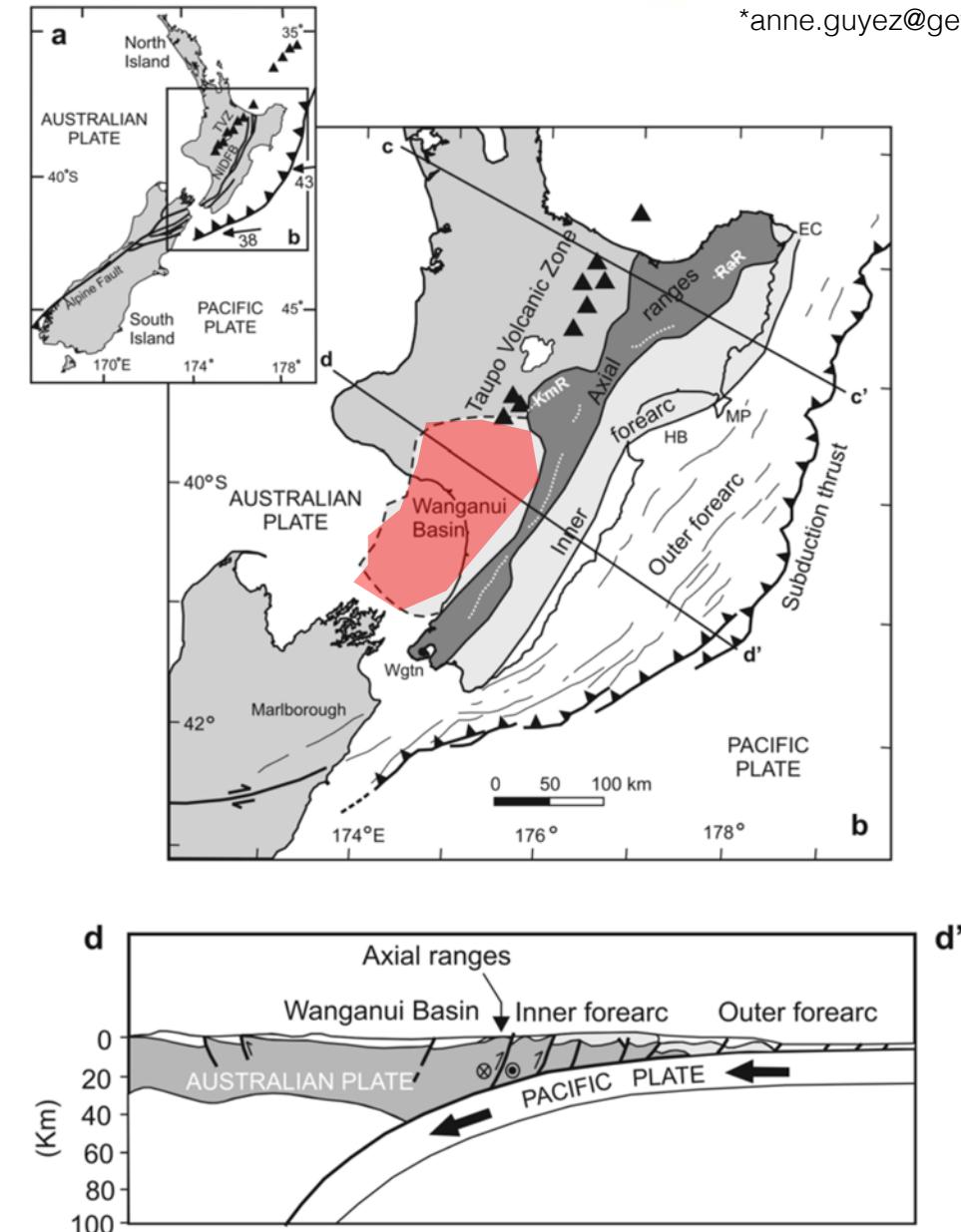
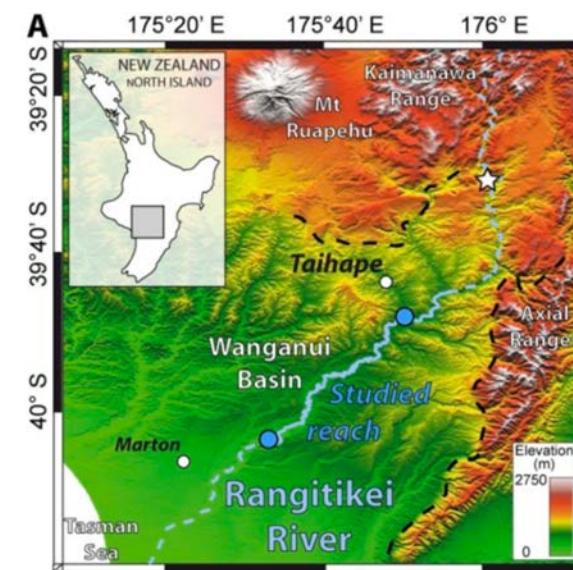
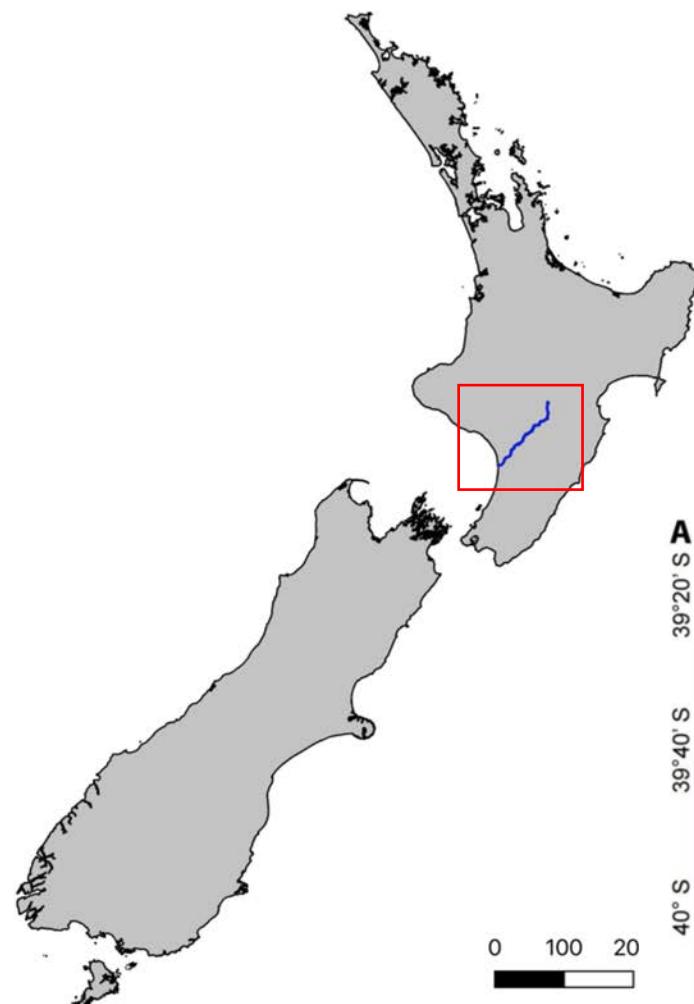


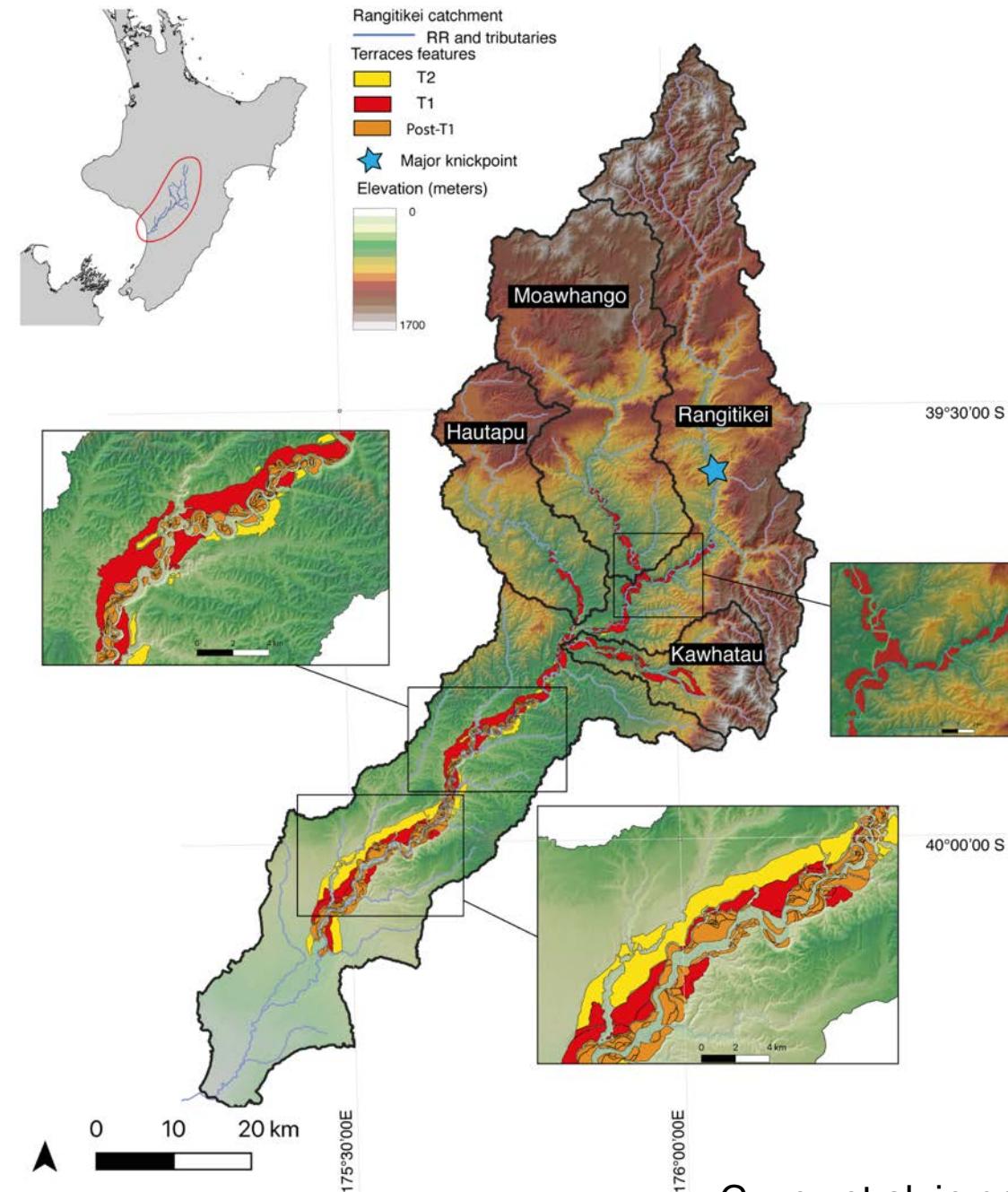
# Imprint of landscape dynamics in the luminescence signal of fluvial sediments (Rangitikei River, NZ)

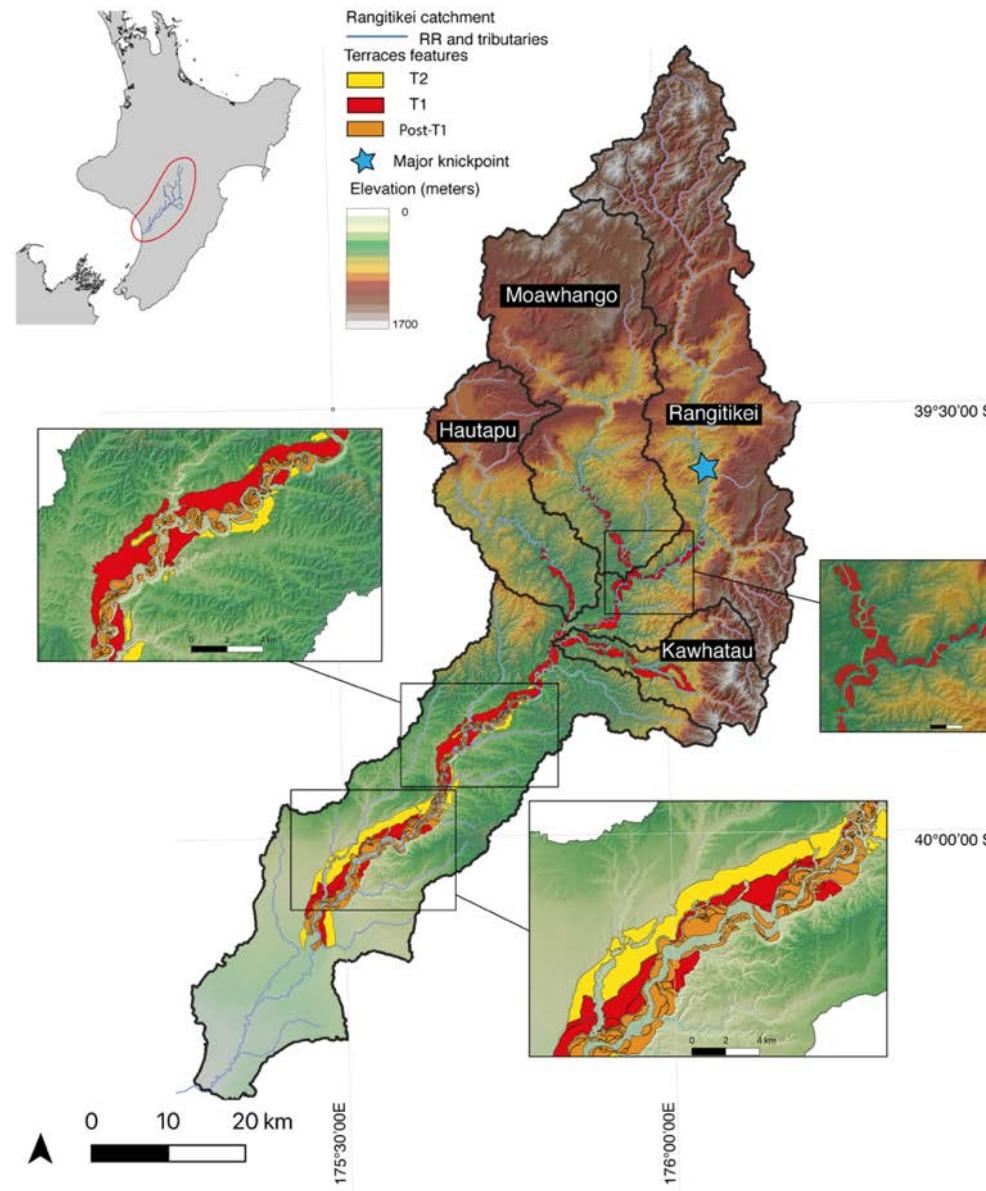
Anne Guyez\*, Stephane Bonnet, Tony Reimann, Sébastien Carretier and Jakob Wallinga



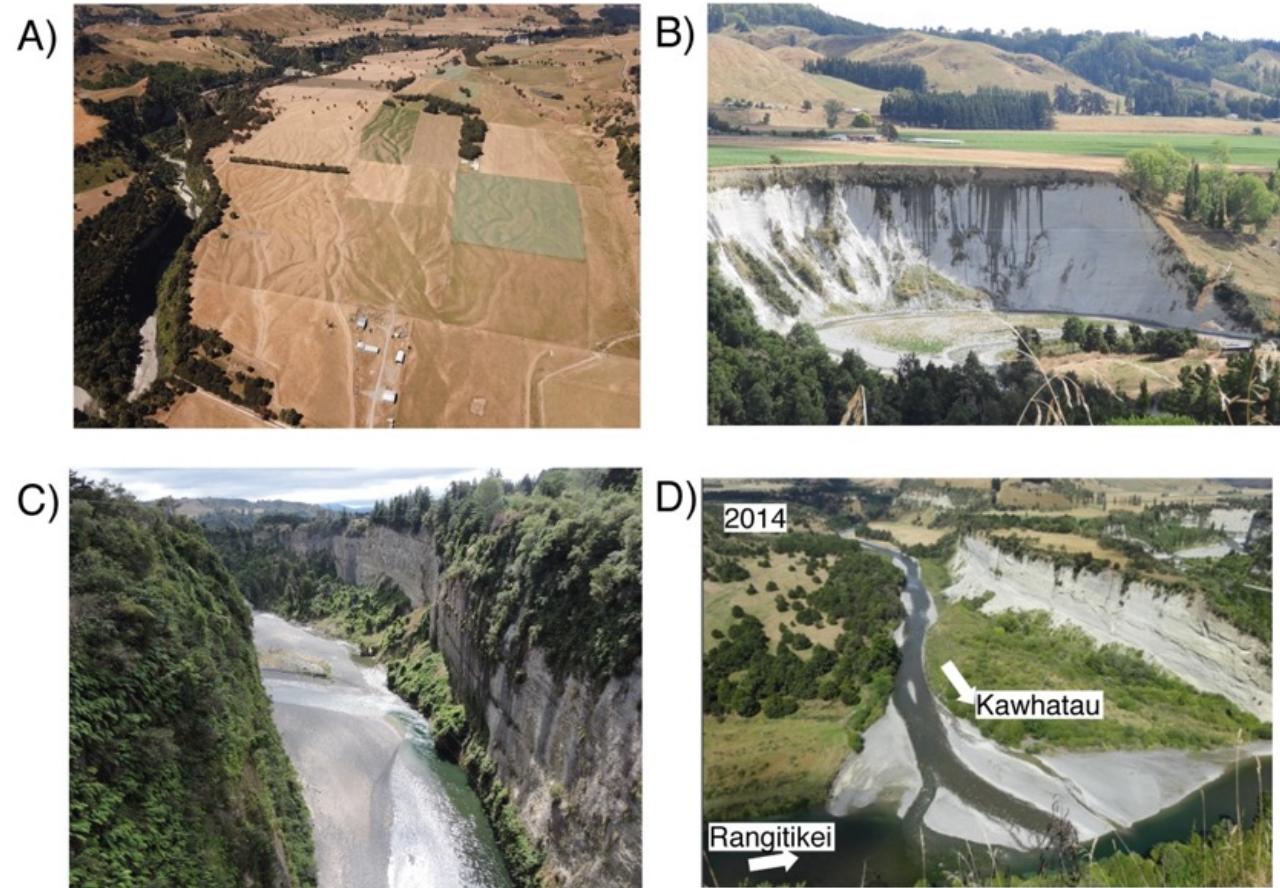
# Rangitikei river, New Zealand





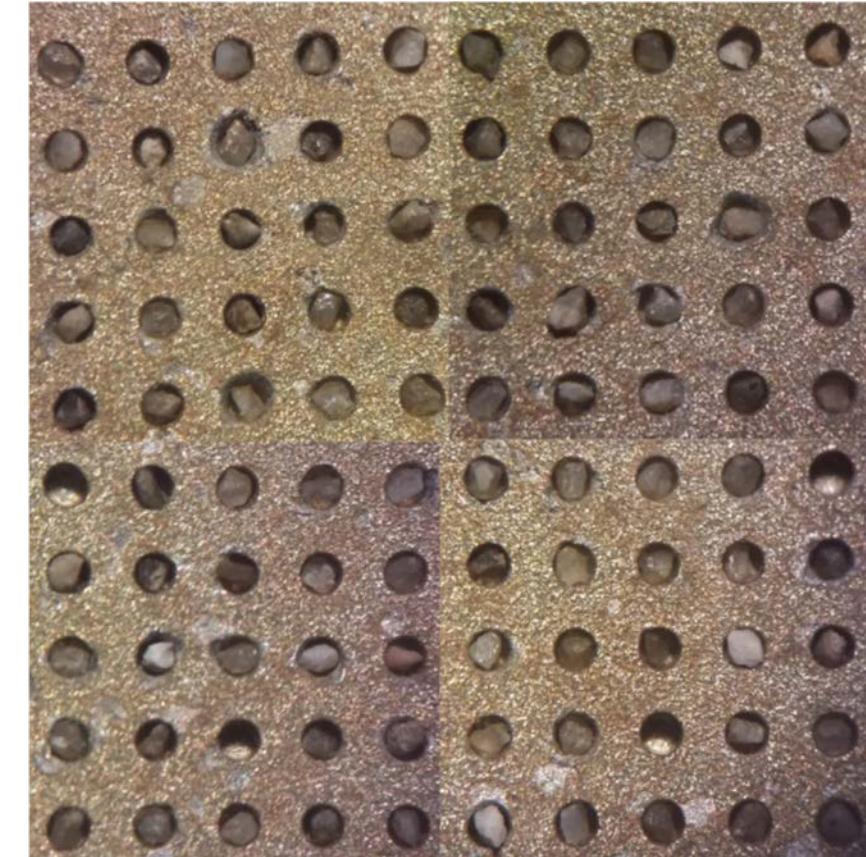
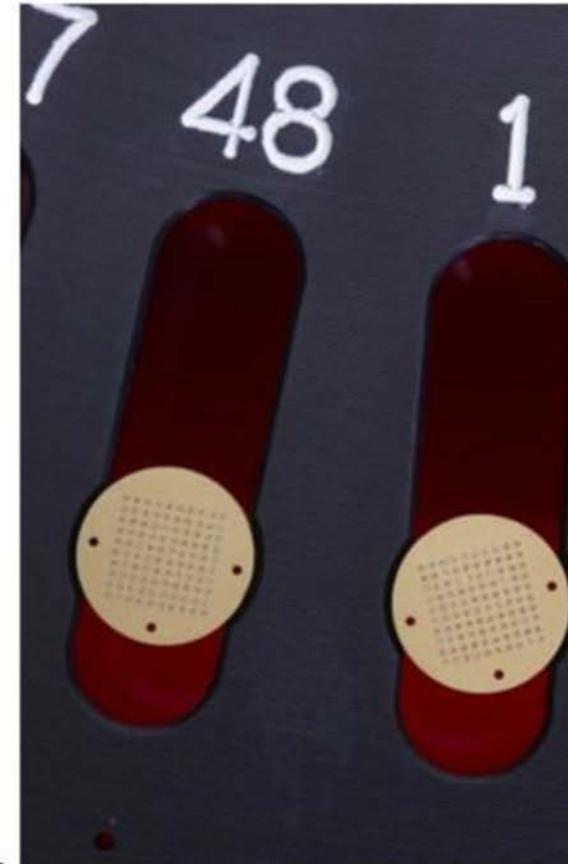


Guyez et al, in prep



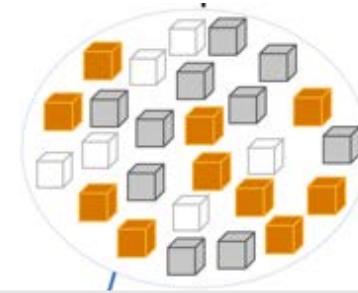
Guyez et al, in prep

## Single-grain – post-infrared feldspar infrared luminescence (SG-pIRIR)



$\varnothing 180\text{--}250 \mu\text{m}$

When we measure 1 sample (300 grains)  
we obtain this kind of distribution



1 Terrace or modern deposit

Type of feldspar grains



Saturated grain (Bedrock)

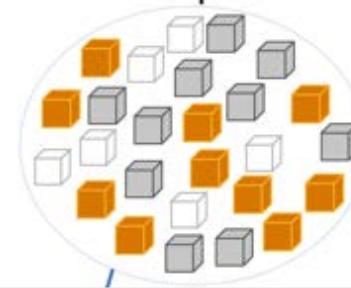


Grain inherited from terraces / modern floodplain  
or partially bleached



Well-bleached grain

When we measure 1 sample (300 grains)  
we obtain this kind of distribution



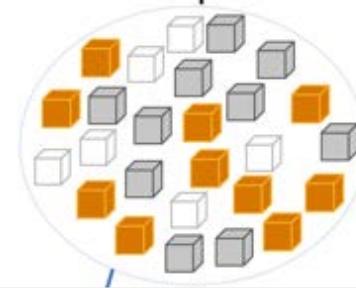
1 Terrace or modern deposit

Easy to identify

Type of feldspar grains

-  Saturated grain (Bedrock)
-  Grain inherited from terraces / modern floodplain or partially bleached
-  Well-bleached grain

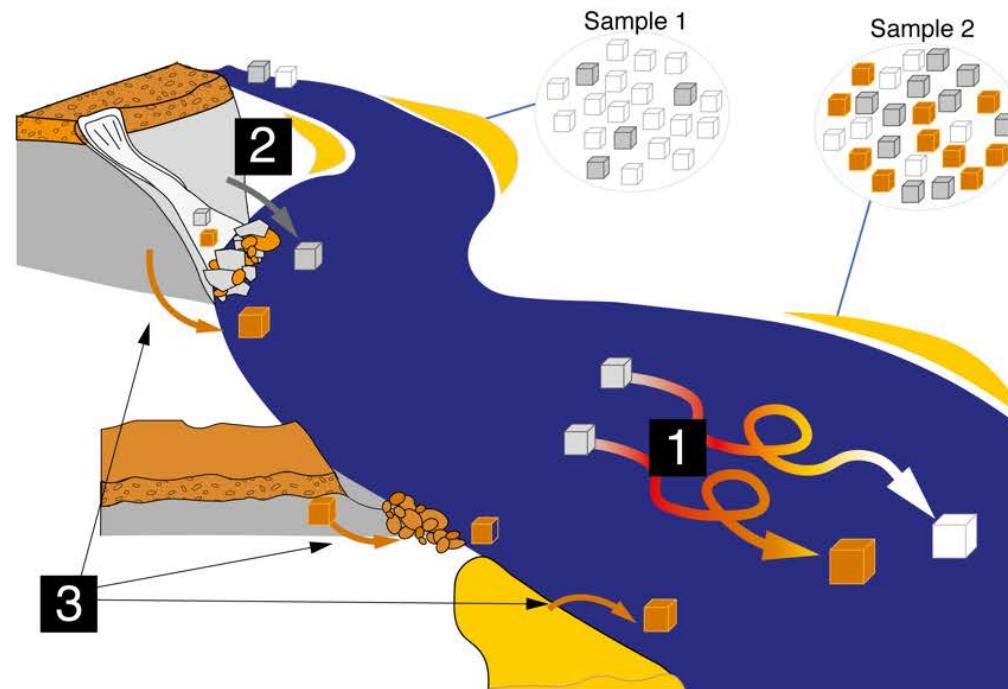
When we measure 1 sample (300 grains)  
we obtain this kind of distribution



Easy to identify

Type of feldspar grains
Saturated grain (Bedrock)
Grain inherited from terraces / modern floodplain or partially bleached
Well-bleached grain

### 1 Terrace or modern deposit



### Processes

- 1 Longitudinal bleaching (complete or partial)
- 2 Lateral input of bedrock from valley walls
- 3 Lateral input of fluvial deposit

### Type of feldspar grains

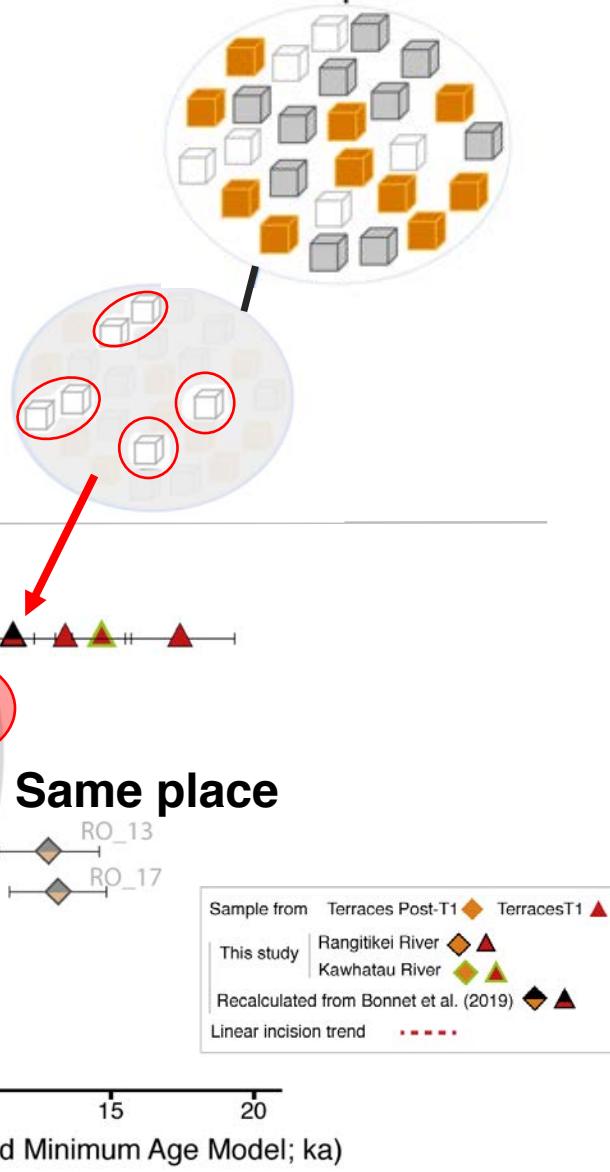
	Saturated grain (Bedrock)
	Grain inherited from terraces / modern floodplain or partially bleached
	Well-bleached grain

### Lithology

	Bedrock
	Terraces
	Modern floodplain deposit

## I. AGE ESTIMATES

**Bootstrapped minimum age model**  
*Based on well-bleached grains*



## II. Saturated grains (bedrock grains)

