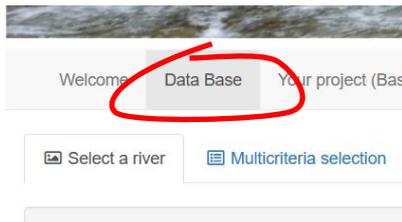


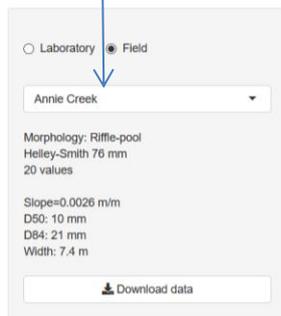
How to use the database in BedloadWeb?



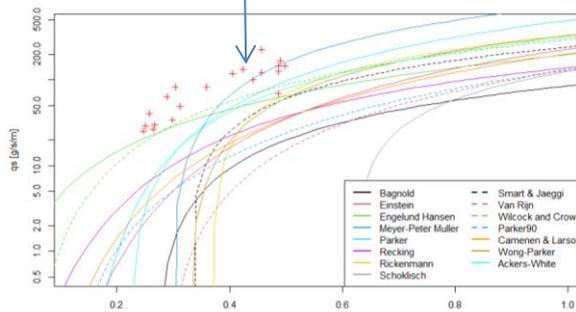
STEP1 : Click on Data Base

What do you see ?

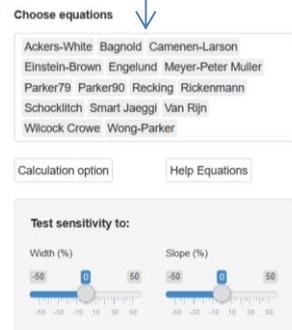
The dataset which is displayed in the figure



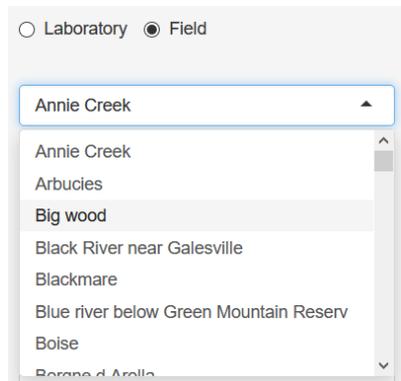
A figure comparing the data (red crosses) and the bedload equations (lines)



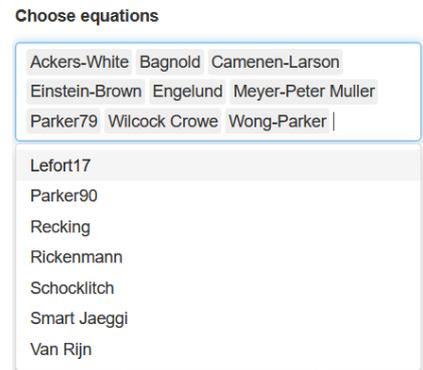
List of bedload equations displayed in the figure



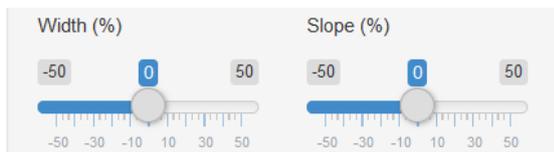
Change the river or the equation selection



and see what happens in the figure...



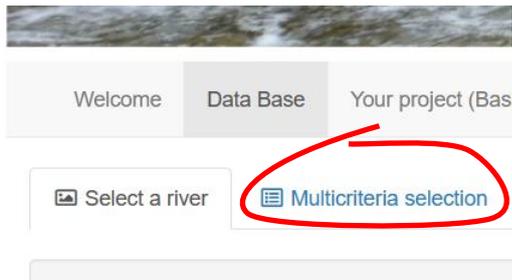
Plays with the scrollbars for changing the values of width, slope, sediment diameters,....



and see what happens...

Almost done with this page: You will conclude that the bedload equations are very different, are sensitive to the inputs, and do not really match the measurements. One difficulty in a bedload project is to make a choice between the equations and to evaluate the uncertainties.

Spend some time playing with the different button then move on to the next page of this document.



STEP2 : Click on Multicriteria

What do you see ?

A menu for selecting data in the database with specific criteria

A table presenting the selected data sets

River	Slope (m/m)	D50(mm)	D84(mm)	Width (m)	Morphology	Technique
1 Annie Creek	0.0026	10	21	7.3	Rifle-pool	Helley-Smith 76 mm
2 Arbucies	0.0095	2.2	20	5.755	Rifle-pool	Helley-Smith 76 mm
3 Big wood	0.0091	116	250	12.76	Plane Bed	Helley-Smith 76 mm
4 Black River near Galesville	0.00023	0.45	0.9	117	Sand bed	Helley-Smith 76 mm
5 Blackmare	0.03	95	220	7.425	Plane Bed	Helley-Smith 76 mm
6 Blue river below Green Mountain Reserv	0.0026	58	220	34	Rifle-pool	Helley-Smith 76 mm

Note: While the previous page displayed only one dataset at a time, this page displays the entire database.

Click several times on the orange button

Result of the selection : **Table <-> Graph**

The screen alternates between the table and a Figure where are displayed all the selected data

Make a selection

For instance select the data having a slope in the range 1%-2%

And see what happens both in the table and in the Figure.

Slope (m/m):

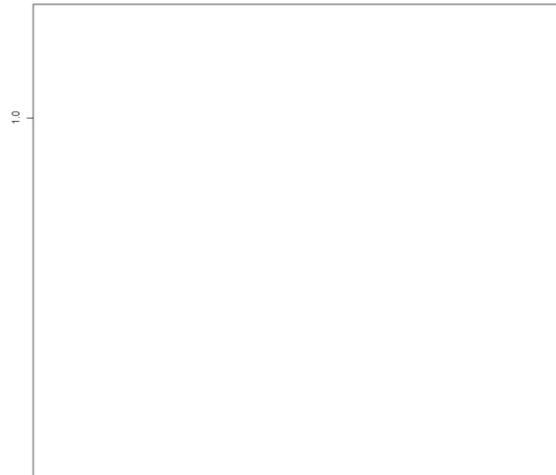
0.01 0.02

Continue with the other parameters before moving on to the bottom of the screen.

Move on to the second part of the screen

Test Equations: ?

Equation	E2(%)	E5(%)	E10(%)
Bagnold	NA	NA	NA
Einstein-Brown	NA	NA	NA
Engelund-Hansen	NA	NA	NA
Meyer-Peter & Muller	NA	NA	NA
Parker79	NA	NA	NA
Recking	NA	NA	NA
Rickenmann	NA	NA	NA
Schoklitsch	NA	NA	NA
Smart and Jaeggli	NA	NA	NA
Van-Rijn	NA	NA	NA
Wilcock Crowe	NA	NA	NA
Parker90	NA	NA	NA
Lefort	NA	NA	NA
Camenen-Larson	NA	NA	NA
Wong-Parker	NA	NA	NA
Ackers-White	NA	NA	NA



Choose equations

- Ackers-White Bagnold Camenen-Larson
- Einstein-Brown Engelund
- Meyer-Peter Muller Parker79 Parker90
- Recking Rickenmann Schoklitsch
- Smart Jaeggli Van Rijn Wilcock Crowe
- Wong-Parker

Start calculation

Compute with :

- Q H
- Correct the shear stress
- Correct wall effects in glass wall canal
- Suppress the sand fraction for calculation with Parker 90

Download computation

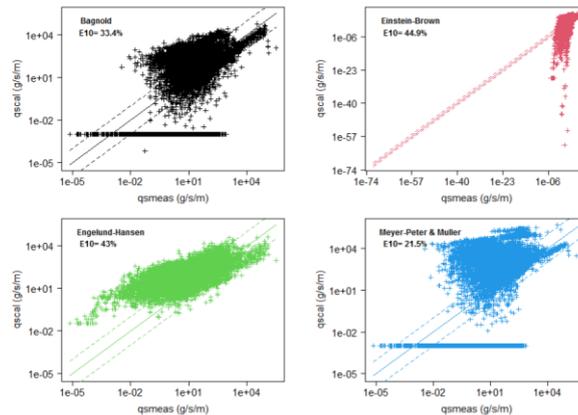
Plot with:

- E2
- E5
- E10

You see again the bedload equations. Click on start calculation.

Test Equations: ?

Equation	E2(%)	E5(%)	E10(%)
Ackers-White	14.8	27.8	33.6
Bagnold	13.3	27.6	33.4
Camenen-Larson	15.4	36	47.8
Einstein-Brown	16	34.6	44.9
Engelund-Hansen	13.2	29.9	43
Meyer-Peter & Muller	7.8	17.1	21.5
Parker79	11.5	25.8	33.5
Parker90	16.9	35.4	45.5
Recking	35.7	67.8	81.1
Rickenmann	12.6	21.4	24.1
Schoklitsch	7.5	17.4	20
Smart and Jaeggli	10.4	20.6	23.9



Choose equations

- Ackers-White Bagnold Camenen-Larson
- Einstein-Brown Engelund
- Meyer-Peter Muller Parker79 Parker90
- Recking Rickenmann Schoklitsch
- Smart Jaeggli Van Rijn Wilcock Crowe
- Wong-Parker

Start calculation

Compute with :

- Q H
- Correct the shear stress
- Correct wall effects in glass wall canal
- Suppress the sand fraction for calculation with Parker 90

Download computation

The selected equations are tested on the data selection

Results are presented in the left table (the higher the score the better) and in the figure.