

Particle Organic Matters in the Kuro-R and Akashio-R

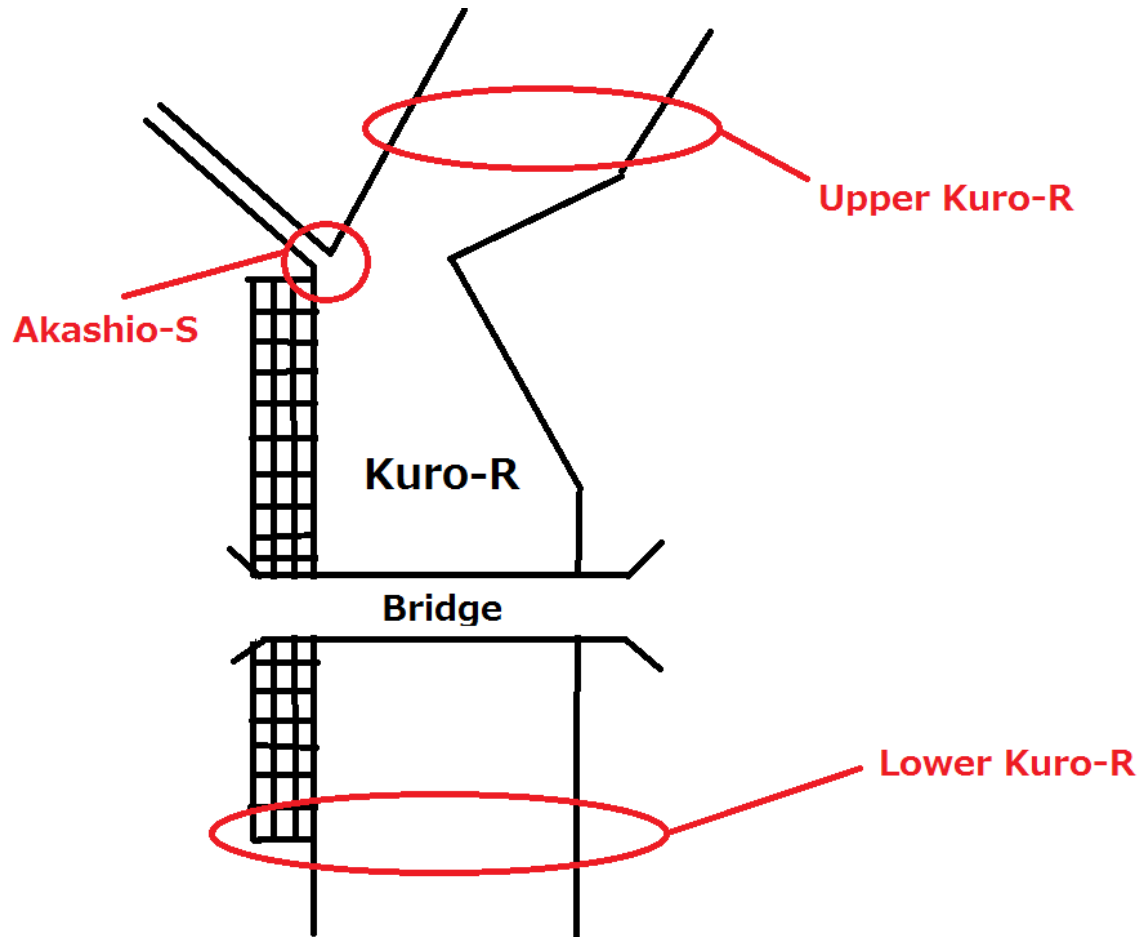
H24 8/23

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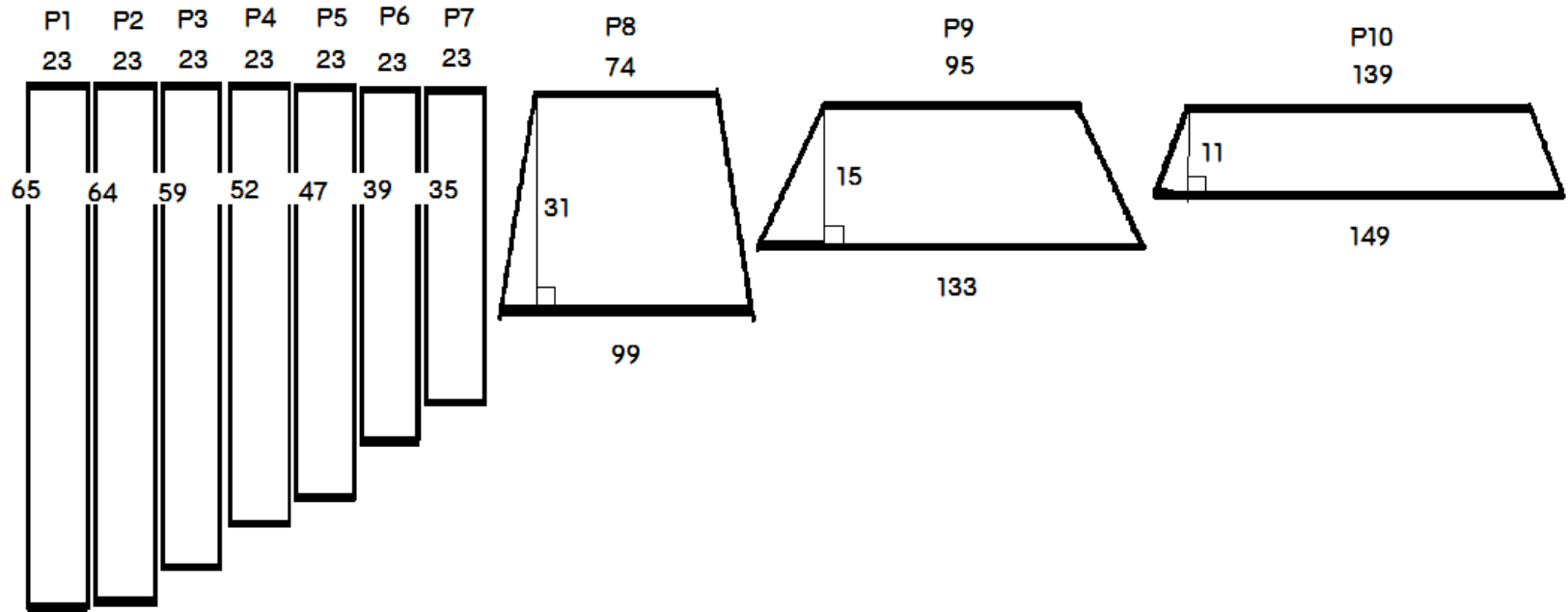
Way

- I collected particles in the upper and lower Kuro-R, and Akashio-S by using net.
- ※ The net is named “Sadeami” in Japanese.
- I checked ten places in the Upper Kuro-R and four places in the Lower Kuro-R, and one place in the Akashio-S. (Referring to next illustrations)
- At that time I measured 10~30 minutes by how much particulate matters are gathered.

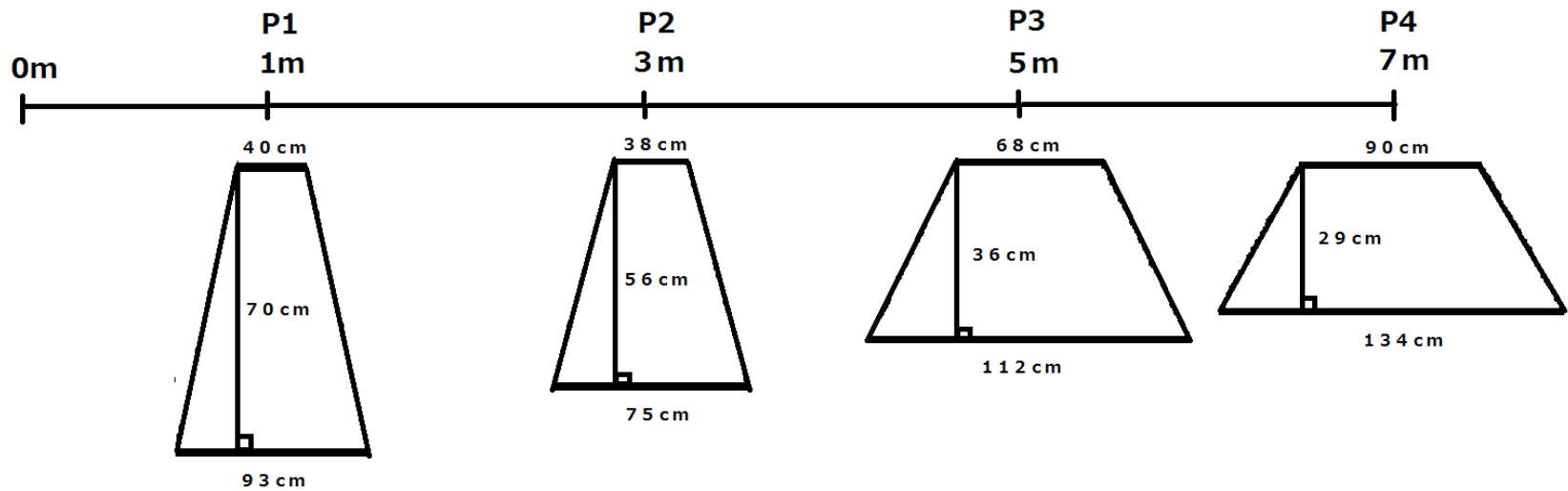
Examination areas



The places of Upper Kuro-R



The places of Lower Kuro-R



Result of Upper Kuro-R

Upper Kuro-R	Q(m ³ /s)	POM=Particle Organic Matters(g/s)	POM/Q (g/m ³)
P1	0.132	0.0261	0.198
P2	0.121	0.0217	0.179
P3	0.105	0.0185	0.176
P4	0.090	0.0135	0.150
P5	0.114	0.0110	0.097
P6	0.060	0.0082	0.137
P7	0.043	0.0046	0.108
P8	0.112	0.0091	0.081
P9	0.047	0.0034	0.072
P10	0.017	0.0004	0.022

Table1

Result of Lower Kuro-R

Lower Kuro-R	Q(m ³ /s)	POM=particle organic matters(g/s)	POM/Q (g/m ³)
P1(1M)	0.154	0.012	0.078
P2(3M)	0.122	0.017	0.136
P3(5M)	0.123	0.011	0.091
P4(7M)	0.110	0.007	0.066

Table 2

Result of Akashio-S

Akashio-S	Q(m ³ /s)	POM=Particle Organic Matters(g/sec)	POM/Q (g/m ³)
1 time	0.01	0.0058	0.58
2 times	0.01	0.0018	0.18
Average	0.01	0.0038	0.38

Table 3

Comparison of POM in Three areas.

	Q(m ³ /s)	POM(g/m ³)
Upper Kuro-R	1.28	0.17
Lower Kuro-R	1.29	0.115
Akashio-S	0.01	0.004

Table 4

Analysis and Discussion 1-1

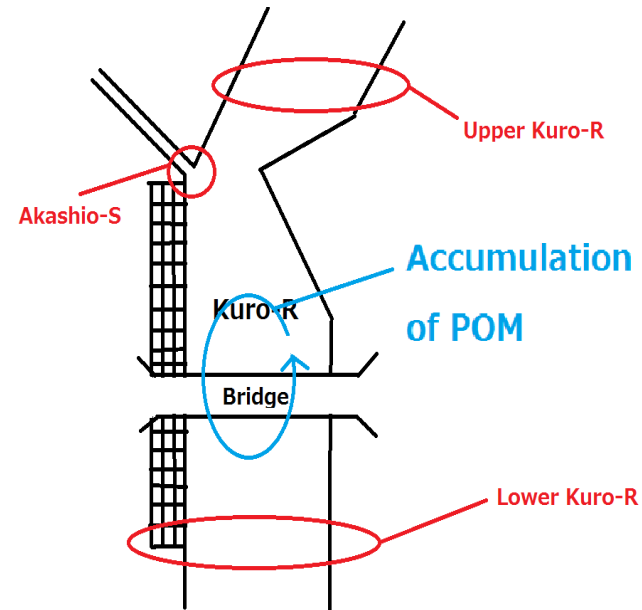
- **The table4 shows that POM in Akashio-S is much lower than POM in the Upper Kuro-R and Lower Kuro-R.**

Probably the reason is that Akashio-S is more complicated structure than Kuro-R.

So Akashio-S have filtering effect by complicated structure , POM are removed before Akashio-S joins Kuro-R.

Analysis and Discussion 1-2

▪ It is said that POM are accumulated between Upper Kuro-R and Lower Kuro-R, considering about addition of Akashio-S's POM. The reason is why table 4 shows that there are 0.065 differences between Upper Kuro-R and Lower Kuro-R.



Relationship of flow and Particle Organic Matters

POM (g/m³)

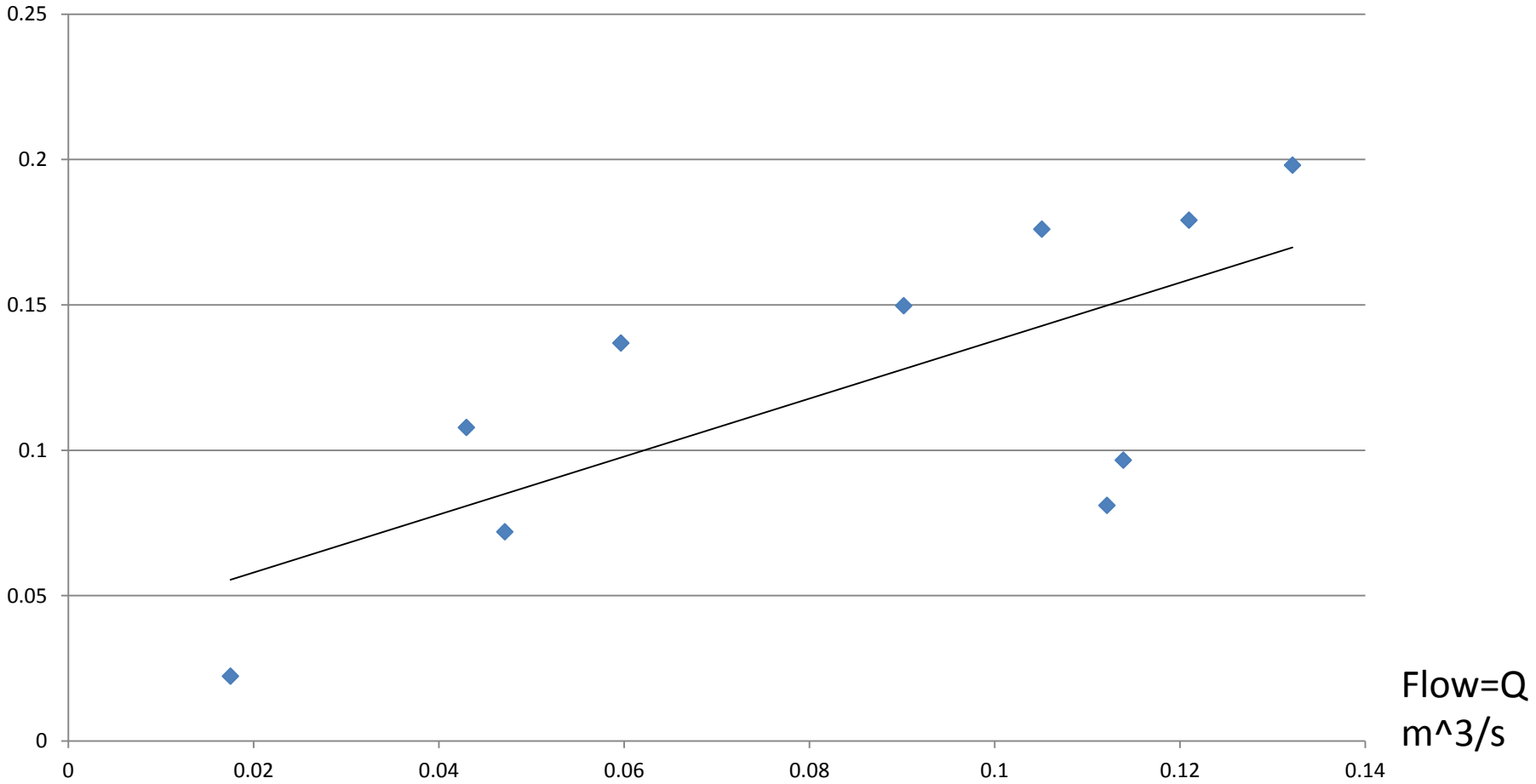


Table 5-1

Relationship of Current and Flow

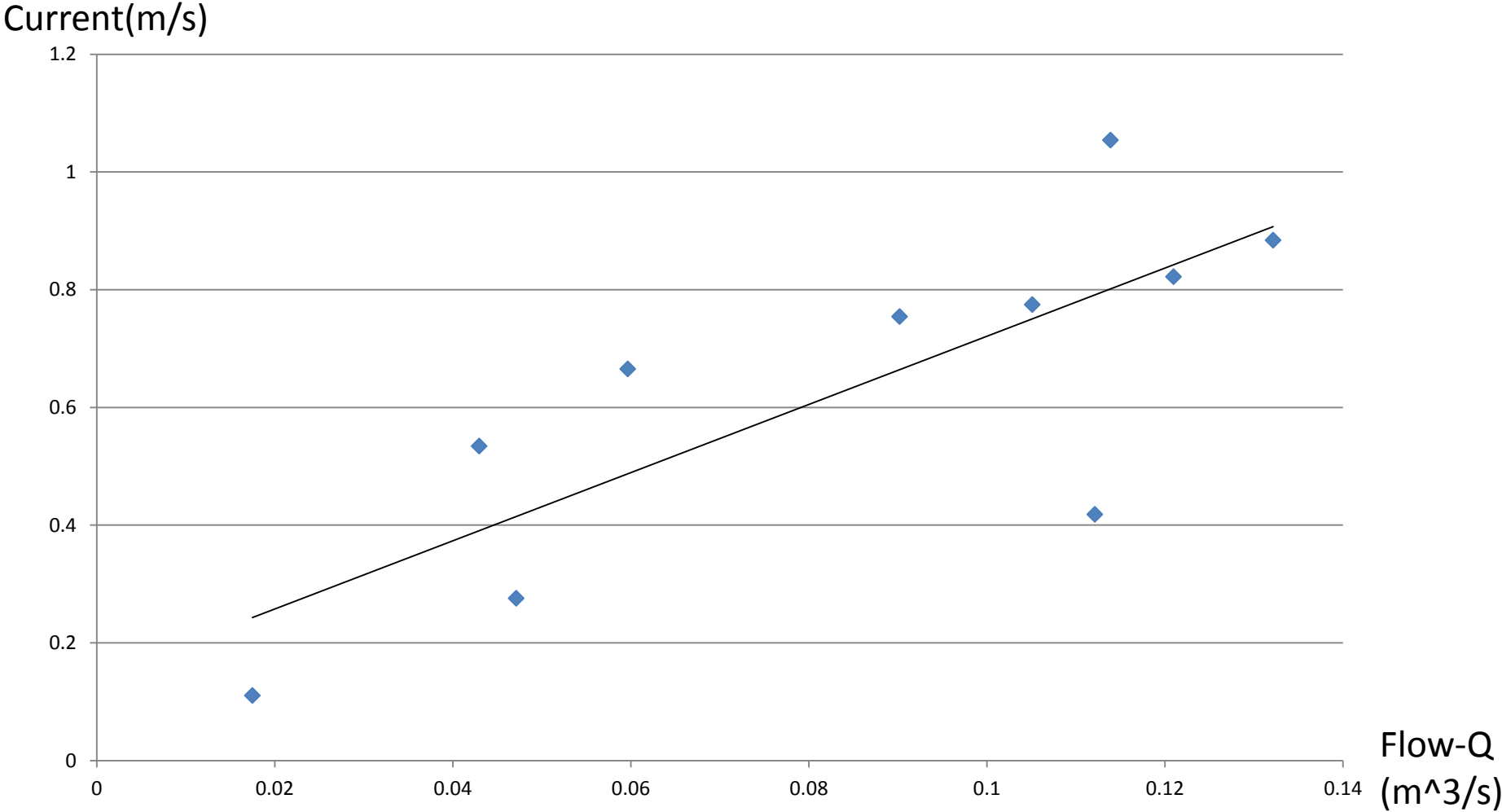


Table5-2

Analysis and Discussion 2

- **The table 5-1,5-2 show flow are proportion to POM(g/m^3) and current.**

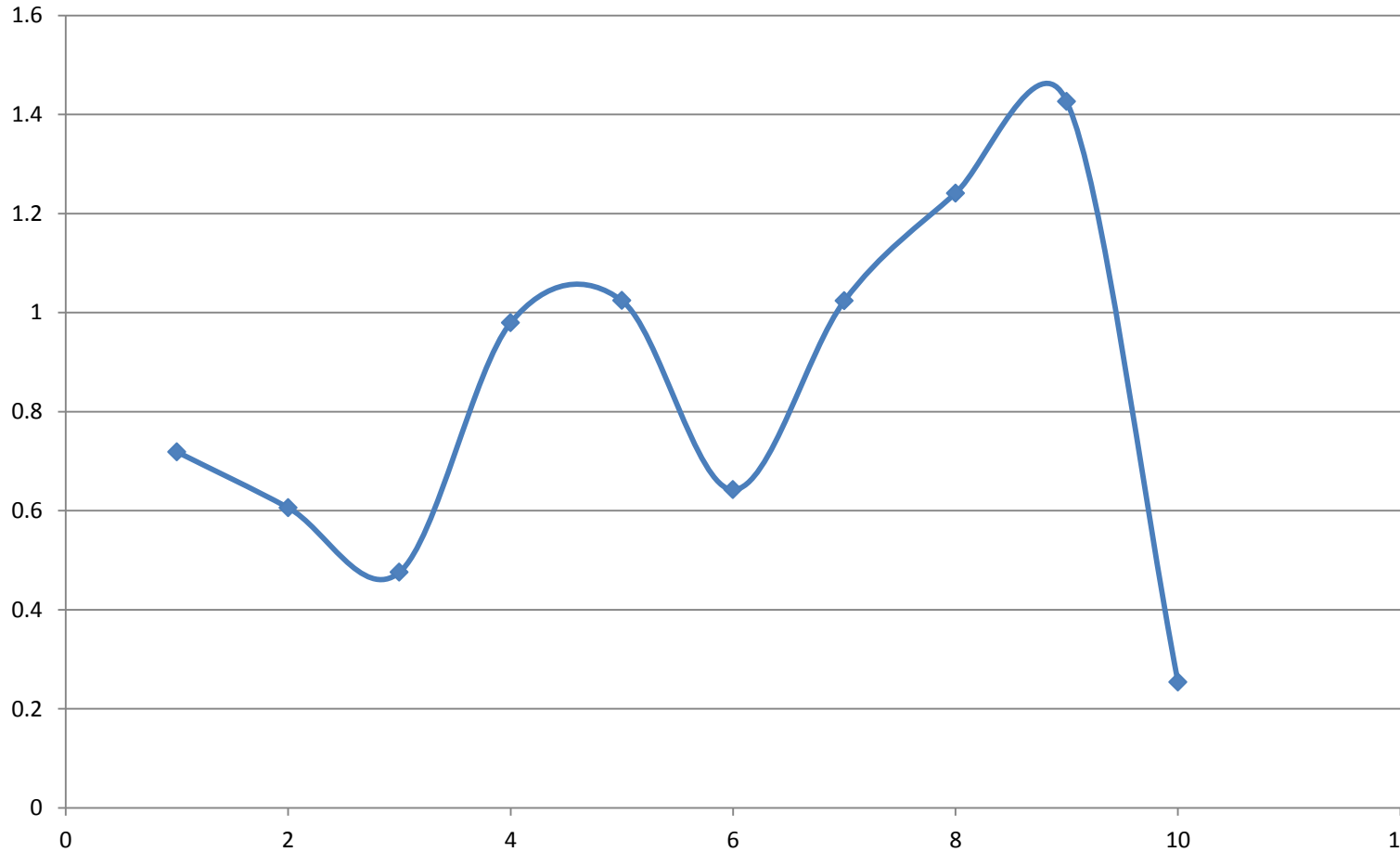
In the slow current POM are more likely to fall than in the fast current , because in the river fast current make various forces of vector and it is probable that they are bigger than gravity.

So in the small flow POM(m^3/s) is small.

Insects cast-off (N/m^3)

※ Insects cast-off drafted in the river.
N=the Number

N/m^3



The places
In the Kuro-R
P1~P10

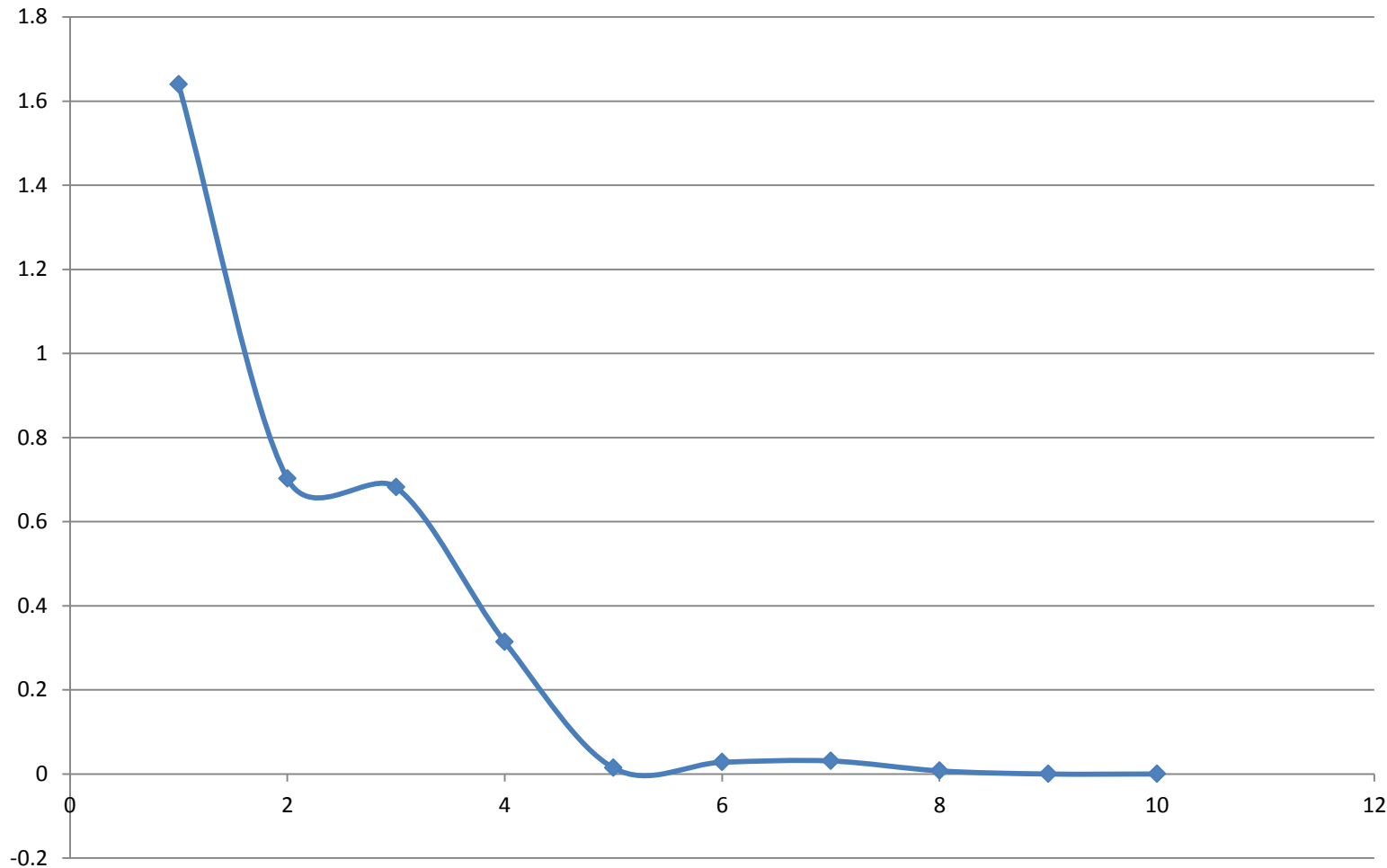
Table 6

Small Flowers (N/m³)

N=the Number

※ Small flowers floated on the surface of river.

N/m³



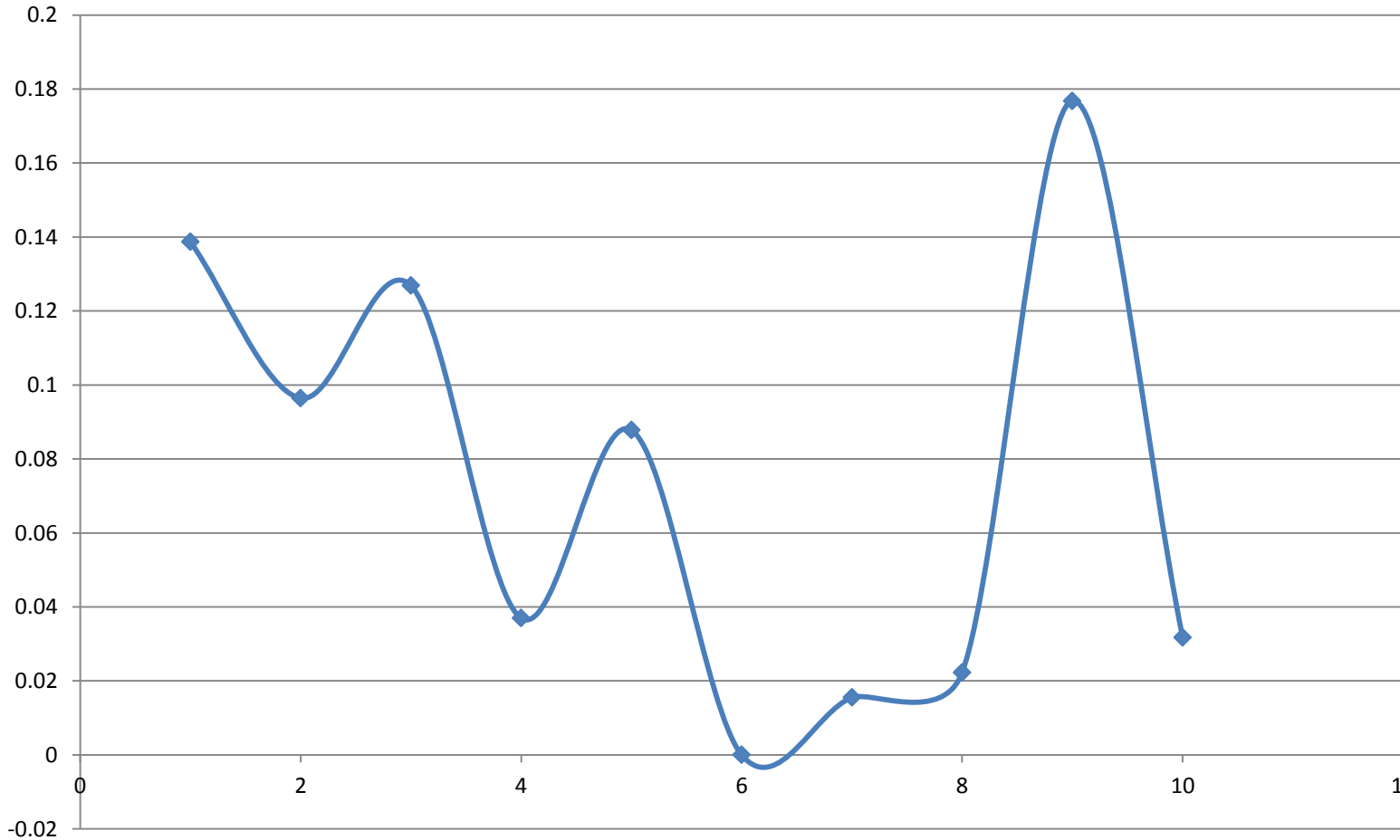
The places
In the Kuro-R
P1~P10

Table 7

Lumps of eggs (N/m^3)

※ There were many kind of eggs.
N=the Number

N/m^3



The places
In the Kuro-R

Table 8 P1~P10

Analysis and Discussion 3

- **The table 6,7,8 show that there are unbalance of some kind of POM in the Kuro-R .**

These tables is led by same way of the calculation and compared by same formula of the graph , but the figures are clearly very different.

Conclusion

- Exhaust of POM are different in each river.
- It is probable that there is difference of POM(m^3/s) in the same river.
- Flow are proportion to POM(g/m^3) and current.
- There are unbalance of some kind of POM in the river .