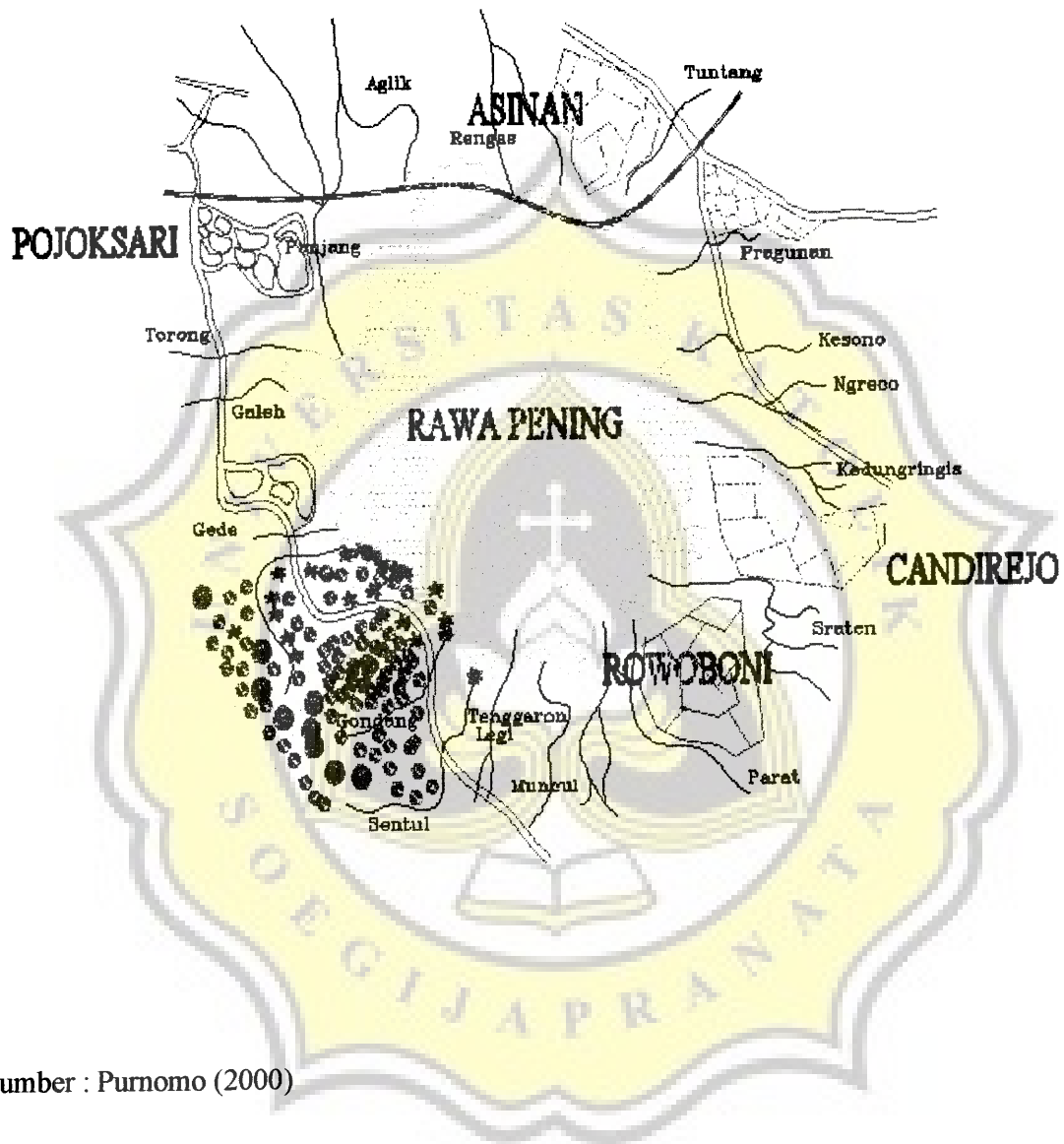


Lampiran 1. Peta Lokasi Pengambilan Sampel



Sumber : Purnomo (2000)

Lampiran 2. Konsentrasi logam Fe ($\mu\text{g} / \text{g}$) dalam udang dari tiga desa di sekitar danau Rawa Pening

Sampel/Fe (ppm)	peng	brt abu (g)	brt krg (g)	brt bsh (g)	Kdr air (%)	Kdr abu (%)	Konsentrasi Logam Fe ($\mu\text{g} / \text{g}$)		
							dlim brt abu	dlim brt krg	dlim brt bsh
as 1	1	1.992	10.144	60.561	78.043	19.637	29.618	5.9148265	1.3174363
as 2	1	1.923	10.108	60.797	75.089	19.024	32.761	6.3316185	1.5943401
as 3	1	1.879	10.095	61.037	74.106	18.613	37.44	7.2313026	1.8903102
as 4	1	1.949	10.026	61.313	76.897	19.439	29.618	5.9844405	1.3861935
						Average	32.35925	6.365547	1.54707
						SD	3.6970406	0.6052755	0.2573332

ps 1	1	2.097	15.888	62.679	74.651	20.534	7.629	1.6647082	0.4309361
ps 2	1	2.022	15.701	63.701	75.352	19.958	7.912	1.678018	0.4190185
ps 3	1	1.988	13.973	63.394	77.958	19.646	8.551	1.7788319	0.3967642
ps 4	1	2.006	13.86	61.881	77.602	20.045	6.979	1.4989507	0.3359763
						Average	7.76775	1.6551272	0.3956738
						SD	0.6520907	0.1159162	0.0422429

cr 1	1	1.776	12.129	58.28	79.188	17.511	70.945	12.620785	2.6639472
cr 2	1	1.762	12.271	59.211	79.275	17.548	51.645	9.162434	1.9067358
cr 3	1	1.773	12.894	59.004	78.147	17.698	53.581	9.582751	2.0979021
cr 4	1	1.754	13.525	58.953	77.057	17.313	57.012	9.9694008	2.3172578
						Average	58.29575	(10.333843)	2.2464607
						SD	8.7199557	1.5598354	0.3249564

Konsentrasi Logam Fe ($\mu\text{g} / \text{g}$) = $\frac{\text{vol. sampel (10 ml)} \times \text{pengeceran} \times \text{hasil pengukuran AAS}}{\text{Berat sampel (abu/kg/bsh) dalam gram}}$

Lampiran 3. Konsentrasi logam Cu ($\mu\text{g} / \text{g}$) dalam udang dari tiga desa di sekitar danau Rawa Pening

Sampel	Cu (ppm)	peng	brt abu	brt krg	brt bsh	Kdr air (%)	Kdr abu (%)	Konsentrasi Logam Cu ($\mu\text{g} / \text{g}$)		
								dmlm brt abu	dmlm brt krg	dmlm brt bsh
as 1	9.92	1	1.992	10.144	60.561	78.043	19.637	49.799	9.7791798	2.1761613
as 2	4.24	2	1.923	10.108	60.797	75.089	19.024	44.097	8.3893945	2.1125006
as 3	10.19	1	1.879	10.095	61.037	74.106	18.613	54.23	10.094106	2.6386659
as 4	9.05	1	1.949	10.026	61.313	76.897	19.439	46.434	9.026531	2.0908419
							Average	48.64	9.3223028	2.2550424
							SD	4.4006312	0.7664236	0.2584297

ps 1	1.59	8	2.097	15.888	62.679	74.651	20.534	60.658	12.455934	3.2244163
ps 2	7.75	2	2.022	15.701	63.701	75.352	19.958	76.656	15.299576	3.8204629
ps 3	1.92	8	1.988	13.973	63.394	77.958	19.646	77.263	15.179366	3.3857209
ps 4	1.9	8	2.006	13.86	61.881	77.602	20.045	75.772	15.189367	3.4045603
							Average	72.58725	14.531061	3.4587901
							SD	7.976361	1.3844893	0.2543084

cr 1	6.21	10	1.776	12.129	58.28	79.188	17.511	349.662	61.230527	12.924306
cr 2	6.52	10	1.762	12.2714	59.211	79.275	17.548	370.034	64.933772	13.512953
cr 3	5.66	10	1.773	12.894	59.004	78.147	17.698	319.232	56.498303	12.368881
cr 4	5.76	10	1.754	13.525	58.953	77.057	17.313	328.392	56.855197	13.215253
							Average	341.83	59.87945	13.005348
							SD	22.716039	3.9979093	0.4876409

Konsentrasi Logam Cu ($\mu\text{g} / \text{g}$) = $\frac{\text{vol. sampel (10 ml)} \times \text{penegenceran} \times \text{hasil pengukuran AAS}}{\text{Berat sampel (abu/kg/bsh) dalam gram}}$

Lampiran 4. Konsentrasi logam Zn ($\mu\text{g} / \text{g}$) dalam udang dari tiga desa di sekitar danau Rawa Pening

Sampel	Zn (ppm)	peng	brt abu (g)	brt krg (g)	brt bsh (g)	Kdr air (%)	Kdr abu (%)	dlim brt abu	dlim brt krg	dlim brt bsh
as 1	1.9	20	1.992	10.144	60.561	78.043	19.637	190.763	37.46057	8.343763
as 2	2.3	20	1.923	10.108	60.797	75.089	19.024	239.206	45.50851	11.45932
as 3	2.2	20	1.879	10.095	61.037	74.106	18.613	234.167	43.58593	11.39365
as 4	2	20	1.949	10.026	61.313	76.897	19.439	205.233	39.89627	9.24129
						Average		217.34225	(41.61282)	10.10951
						SD		23.196165	3.617426	1.564467

ps 1	1.5	20	2.097	15.888	62.679	74.651	20.534	143.061	29.3772	7.604756
ps 2	1.6	20	2.022	15.701	63.701	75.352	19.958	158.259	31.58622	7.887407
ps 3	1.3	20	1.988	13.973	63.394	77.958	19.646	130.784	25.69424	5.731038
ps 4	0.6	20	2.006	13.86	61.881	77.602	20.045	59.82	11.99161	2.687811
						Average		122.981	(24.66232)	5.977753
						SD		43.581121	8.789812	2.392941

cr 1	1.9	120	1.776	12.129	58.28	79.188	17.511	1283.783	224.8077	47.45156
cr 2	1.8	120	1.762	12.2714	59.211	79.275	17.548	1293.984	215.118	44.76684
cr 3	2.3	120	1.773	12.894	59.004	78.147	17.698	1556.683	275.5041	60.31469
cr 4	2	120	1.754	13.525	58.953	77.057	17.313	1368.301	236.8967	55.06355
						Average		1375.6878	(238.0816)	51.89916
						SD		126.40653	26.49131	7.105997

Konsentrasi Logam Zn ($\mu\text{g} / \text{g}$) = $\frac{\text{vol. sampel (10 ml)} \times \text{pengenceran} \times \text{hasil pengukuran } \Delta\text{AS}}{\text{Berat sampel (abu/kg/bsh) dalam gram}}$

Berat sampel (abu/kg/bsh) dalam gram

Lampiran 5. Data Asupan, Hazard Quotient (HQ), dan MCL (Maximum Consumption Level) logam Zn dan Cu pada berbagai lokasi dan golongan umur.

Logam	Lokasi	Umur	Rata-rata		Asupan		ULSR		MCL		
			Konsentrasi (µg / g)	Rata-rata Konsumsi** (g/orang/minggu)	(mg/minggu)	(mg/minggu)	(kg/orang/minggu)	(kg/orang/minggu)			
Zn	Asinan	Remaja	10.11	23.31	0.24	280	252	0.0008	0.0009	27.70	24.9
		Perempuan	5.98	23.31	0.14	280	252	0.0005	0.0006	46.84	42.1
	Pojoksari	Remaja	5.98	35	0.21	315	245	0.0007	0.0009	52.70	40.9
		Dewasa	51.9	35	1.82	280	252	0.0065	0.0072	5.40	4.8
	Candirejo	Remaja	51.9	35	1.82	315	245	0.0058	0.0074	6.07	4.7
		Dewasa									
Cu	Asinan	Remaja	2.26	23.31	0.05	56	56	0.0009	0.0009	24.83	24.8
		Perempuan	3.46	23.31	0.08	56	56	0.0014	0.0014	16.20	16.2
	Pojoksari	Remaja	3.46	35	0.12	84	70	0.0014	0.0017	24.30	20.2
		Dewasa	13.01	35	0.46	56	56	0.0081	0.0081	4.31	4.3
	Candirejo	Remaja	13.01	35	0.46	84	70	0.0054	0.0065	6.46	5.3
		Dewasa									

1

$$MCL = \frac{ULSR}{HQ} \times WC$$

HQ

Keterangan :

- MCL = Maximum Consumption Level (g/orang/minggu)
- HQ = Hazard Quotient (WI / ULSR)
- WI = Weekly intake (mg/orang/minggu)
- ULSR = Upper Limit of the Safe Range (mg / minggu)
- WC = Weekly Consumption (g/orang/minggu)

Lampiran 6. Hasil analisis 2 Independent Sampel logam Zn pada udang dari lokasi berbeda

**NPar Tests
Mann-Whitney Test**

Ranks

LOKASI	N	Mean Rank	Sum of Ranks
KDR_ZN Asinan	4	6.50	26.00
Pojoksari	4	2.50	10.00
Total	8		

Test Statistics^b

	KDR_ZN
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: LOKASI

Lampiran 7. Hasil analisis 2 Independent Sampel logam Zn pada udang dari lokasi berbeda

**NPar Tests
Mann-Whitney Test**

Ranks

LOKASI	N	Mean Rank	Sum of Ranks
KDR_ZN Asinan	4	2.50	10.00
Candirejo	4	6.50	26.00
Total	8		

Test Statistics^b

	KDR_ZN
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: LOKASI

Lampiran 8. Hasil analisis 2 Independent Sampel logam Zn pada udang dari lokasi berbeda

**NPar Tests
Mann-Whitney Test**

Ranks

LOKASI	N	Mean Rank	Sum of Ranks
KDR_ZN Pojoksari	4	2.50	10.00
Candirejo	4	6.50	26.00
Total	8		

Test Statistics^b

	KDR_ZN
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: LOKASI

Lampiran 9. Hasil analisis 2 Independent Sampel logam Cu pada udang dari lokasi berbeda

**NPar Tests
Mann-Whitney Test**

Ranks

LOKASI	N	Mean Rank	Sum of Ranks
KDR_CU Asinan	4	2.50	10.00
Pojoksari	4	6.50	26.00
Total	8		

Test Statistics^b

	KDR_CU
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: LOKASI

Lampiran 10. Hasil analisis 2 Independent Sampel logam Cu pada udang dari lokasi berbeda

**NPar Tests
Mann-Whitney Test**

Ranks

LOKASI	N	Mean Rank	Sum of Ranks
KDR_CU Asinan	4	2.50	10.00
Candirejo	4	6.50	26.00
Total	8		

Test Statistics^b

	KDR_CU
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: LOKASI

Lampiran 11. Hasil analisis 2 Independent Sampel logam Cu pada udang dari lokasi berbeda

**NPar Tests
Mann-Whitney Test**

Ranks

LOKASI	N	Mean Rank	Sum of Ranks
KDR_CU Pojoksari	4	2.50	10.00
Candirejo	4	6.50	26.00
Total	8		

Test Statistics^b

	KDR_CU
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: LOKASI

Lampiran 12. Hasil analisis 2 Independent Sampel logam Fe pada udang dari lokasi berbeda

**NPar Tests
Mann-Whitney Test**

Ranks

	LOKASI	N	Mean Rank	Sum of Ranks
KDR_FE	Asinan	4	6.50	26.00
	Pojoksari	4	2.50	10.00
	Total	8		

Test Statistics^b

	KDR_FE
Mann-Whitney U	.000
Wilcoxon W	0.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: LOKASI

Lampiran 13. Hasil analisis 2 Independent Sampel logam Fe pada udang dari lokasi berbeda

**NPar Tests
Mann-Whitney Test**

Ranks

	LOKASI	N	Mean Rank	Sum of Ranks
KDR_FE	Asinan	4	2.50	10.00
	Candirejo	4	6.50	26.00
	Total	8		

Test Statistics^b

	KDR_FE
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: LOKASI

Lampiran 14. Hasil analisis 2 Independent Sampel logam Fe pada udang dari lokasi berbeda

**NPar Tests
Mann-Whitney Test**

Ranks

	LOKASI	N	Mean Rank	Sum of Ranks
KDR_FE	Pojoksari	4	2.50	10.00
	Candirejo	4	6.50	26.00
	Total	8		

Test Statistics^b

	KDR_FE
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.309
Asymp. Sig. (2-tailed)	.021
Exact Sig. [2*(1-tailed Sig.)]	.029 ^a

a. Not corrected for ties.

b. Grouping Variable: LOKASI

