

APPENDIX

A. Data structure of rainfall

The raw data of the rainfall collected at 1995-1996 for tree stations are called *rainfall.num* and consists of 3 columns (station, day, rainfall), as follows

station	day	rainfall(mm)	station	day	rainfall(mm)	station	day	rainfall(mm)
1	5	20.57	2	25	16.6	3	56	1.3
1	15	2.79	2	26	4.2	3	64	2.3
1	25	10.16	2	34	4.5	3	80	7.5
1	54	1.52	2	54	4.2	3	81	3.5
1	80	2.03	2	58	11	3	82	13.4
1	82	4.06	2	119	26.7	3	83	.3
1	117	3.81	2	138	3.7	3	130	19.3
1	130	8.63	2	148	20.5	3	132	12
1	132	3.81	2	149	17.5	3	134	5
1	133	5.68	2	155	31.3	3	147	.3
1	134	1.52	2	158	7.5	3	148	3.8
1	148	13.97	2	159	13.7	3	155	26.5
1	151	4.31	2	165	16.1	3	157	5.2
1	155	8.13	2	176	16.4	3	159	7
1	157	3.3	2	179	6.5	3	160	12.5
1	158	5.58	2	190	23.5	3	195	3.7
1	159	23.87	2	198	10.2	3	196	34.3
1	160	21.84	2	200	10.4	3	198	75.6
1	161	3.3	2	211	33.2	3	205	14.4
1	165	11.43	2	213	4.3	3	207	5.4
1	166	2.54	2	220	59.8	3	210	2.8
1	168	1.78	2	223	7.7	3	211	3.8
1	176	.25	2	233	18.5	3	213	35.8
1	179	13.21	2	234	37.8	3	230	87
1	186	13.21	2	236	6.2	3	234	27.6
1	187	.21	2	247	25.2	3	239	17.8
1	191	9.65	2	249	12.3	3	240	6.8
1	195	14.73	2	259	16.7	3	244	7.8
1	196	8.38	2	261	16.8	3	247	1.1
1	198	25.91	2	262	13.2	3	253	4.5
1	199	3.81	2	267	17.8	3	258	3.7
1	207	7.62	2	273	11.2	3	259	1
1	211	3.05	2	275	7.8	3	260	29.3
1	212	4.32	2	276	19.2	3	262	1.5
1	213	21.1	2	279	9.8	3	263	1.4
1	214	2.28	2	283	28.4	3	264	2.8
1	215	1.27	2	291	23.8	3	273	2
1	217	22.86	2	296	7.4	3	276	17
1	218	8.89	2	297	4.2	3	278	10.1
1	223	24.89	2	298	4.5	3	279	3
1	225	17.02	2	304	29.3	3	280	55.6
1	227	1.02	2	305	5.8	3	283	20.6
1	230	49.53	2	308	24.5	3	284	3.2
1	231	.76	2	309	17.8	3	291	.7
1	233	2.28	2	310	31.5	3	295	13.2
1	234	5.1	2	312	4.2	3	296	40
1	236	.76	2	313	14.6	3	297	129.5
1	238	.51	2	315	12.4	3	298	37
1	241	.25	2	316	14.3	3	299	26
1	244	.51	2	319	110.4	3	300	45
1	247	3.3	2	320	298.5	3	302	12.7
1	249	5.08	2	322	117.5	3	305	23.4
1	250	26.67	2	323	64.3	3	308	8.3
1	251	24.89	2	324	62.5	3	309	15.5
1	253	.51	2	325	25.3	3	310	55
1	259	19.81	2	326	114.8	3	313	10.9
1	260	11.94	2	327	16.5	3	314	16.1
1	261	.51	2	328	6.8	3	315	8.9
1	262	.51	2	329	10.3	3	316	28.5
1	267	.21	2	330	14.5	3	319	53.5
1	268	1.02	2	335	96.5	3	320	319.3
1	269	1.02	2	336	218.7	3	321	108.5

1	272	2.79	2	337	19.3	3	322	103.8
1	275	20.83	2	340	9.3	3	323	49
1	276	36.32	2	353	15.3	3	324	16.2
1	278	1.52	2	356	59.5	3	325	118.8
1	279	3.3	2	358	23.2	3	326	13.5
1	280	37.34	2	360	23.5	3	327	20.8
1	283	12.19	2	361	17.5	3	328	11.4
1	286	6.35	2	362	16.2	3	329	21.7
1	289	.76	2	363	7.6	3	336	212.6
1	290	50.03	2	477	30.4	3	337	23
1	294	2.54	2	481	43.5	3	340	13
1	296	10.92	2	486	35.4	3	352	4
1	297	6.86	2	496	18.5	3	353	9.8
1	299	2.03	2	500	13.1	3	354	7.6
1	300	4.32	2	505	22.1	3	355	6.8
1	301	1.27	2	507	19.5	3	356	32.1
1	302	10.16	2	519	20.3	3	357	15.9
1	303	6.86	2	526	19.2	3	360	3.8
1	304	13.72	2	527	2.3	3	361	16.3
1	305	28.95	2	533	39.4	3	362	16.8
1	308	12.7	2	554	12.3	3	363	11.9
1	309	13.46	2	556	23.2	3	375	2.7
1	310	69.85	2	584	29.2	3	424	3.1
1	312	6.35	2	591	24.5	3	456	25
1	313	17.78	2	596	7.5	3	474	32.6
1	314	8.89	2	599	10.5	3	475	32.7
1	315	1.52	2	600	16.1	3	476	32.5
1	316	11.43	2	601	16.2	3	477	25.5
1	319	78.74	2	604	7.2	3	479	31
1	320	220.47	2	605	3.5	3	481	31.5
1	321	82.55	2	606	29.3	3	482	32
1	322	44.96	2	614	13.5	3	483	31.8
1	323	49.53	2	618	25.3	3	485	32
1	324	19.81	2	632	58.4	3	490	30
1	325	42.93	2	637	12.5	3	491	5.1
1	326	9.4	2	644	22.8	3	492	3.1
1	327	2.54	2	647	14.5	3	500	7.7
1	328	4.32	2	651	3.5	3	526	9.5
1	329	17.78	2	659	19.8	3	527	36.2
1	335	87.12	2	663	4.3	3	528	14
1	336	248.41	2	666	59.3	3	531	21.8
1	337	4.32	2	667	73.5	3	566	2.8
1	338	25.91	2	669	5.1	3	585	17.3
1	341	17.52	2	676	24.3	3	587	4.2
1	352	.25	2	680	18.4	3	592	8.3
1	353	3.05	2	681	14.3	3	601	28.3
1	354	3.3	2	684	16.8	3	602	10
1	355	1.77	2	686	34.5	3	605	2
1	356	24.89	2	687	22.3	3	606	3.5
1	357	23.11	2	688	29.5	3	607	60.8
1	358	6.09	2	689	78.4	3	608	7
1	360	5.08	2	690	24.2	3	616	43
1	361	23.62	2	691	49.5	3	632	17
1	362	20.57	2	692	26.3	3	633	50
1	363	8.1	2	693	4.2	3	635	6.3
1	394	1.78	2	694	3.1	3	638	.4
1	396	21.59	2	695	1.2	3	642	.2
1	398	1.78	2	699	56.5	3	645	.3
1	419	.51	2	700	5.3	3	648	6.7
1	454	.51	2	703	23.5	3	650	1.8
1	462	.76	2	704	136.7	3	653	76.5
1	477	14.48	2	705	11.4	3	661	3.5
1	480	.51	2	706	13.3	3	664	66
1	486	90.42	2	707	54.5	3	665	13.4
1	487	15.75	2	708	310.5	3	666	7.7
1	489	.51	2	709	78.6	3	667	116
1	491	7.87	2	710	53.9	3	668	7.3
1	492	5.33	2	711	33.4	3	671	2
1	500	3.05	2	712	58.9	3	675	68.2

1	501	8.89	2	713	23.8	3	676	1
1	504	2.03	2	714	35.2	3	677	38.6
1	508	1.02	2	715	8.1	3	687	14.7
1	519	17.78	2	717	50.3	3	689	83.6
1	520	.51	2	718	8.5	3	690	43.6
1	524	.76	2	719	80.7	3	691	19.7
1	525	.25	2	720	185.4	3	692	37.3
1	527	20.83	2	721	145.6	3	693	38
1	530	4.57	2	722	12.3	3	695	18.9
1	531	1.78	2	774	34.5	3	697	4.5
1	533	5.33	2	784	41.2	3	698	7.5
1	536	1.52	2	785	56.6	3	699	7.5
1	539	2.79				3	700	25
1	542	4.57				3	701	8.5
1	550	6.35				3	704	26.8
1	553	.16				3	705	80.6
1	555	4.06				3	706	45.9
1	557	.51				3	707	54.3
1	558	.51				3	708	254
1	559	6.85				3	709	81
1	584	14.47				3	710	65.7
1	587	5.84				3	711	45.2
1	590	4.32				3	712	85.9
1	591	67.87				3	713	59
1	596	10.92				3	714	21.8
1	597	.25				3	715	5
1	600	1.78				3	716	8
1	601	9.39				3	717	13
1	603	1.78				3	718	23.5
1	604	1.78				3	720	119.5
1	605	1.27				3	721	103.3
1	606	39.37				3	722	44.5
1	607	9.91				3	723	6
1	608	17.02				3	765	2
1	611	3.3				3	773	4
1	615	9.65				3	775	3.8
1	617	16.51				3	785	116.1
1	618	2.28				3	786	51.4
1	619	.25						
1	625	.51						
1	629	1.52						
1	632	34.54						
1	635	9.14						
1	639	5.84						
1	641	1.27						
1	643	2.03						
1	645	7.36						
1	648	2.79						
1	649	1.27						
1	650	2.54						
1	651	13.97						
1	652	33.02						
1	655	.76						
1	656	5.59						
1	659	8.13						
1	663	.51						
1	664	5.08						
1	665	2.54						
1	666	20.83						
1	667	18.29						
1	668	76.71						
1	669	.76						
1	671	3.55						
1	674	58.17						
1	675	.51						
1	676	11.94						
1	680	.76						
1	681	9.1						
1	683	.25						

1	684	1.52
1	685	.25
1	687	4.57
1	688	61.47
1	689	57.4
1	690	18.03
1	691	23.11
1	692	20.57
1	693	4.32
1	695	5.1
1	699	13.71
1	700	4.32
1	701	5.33
1	703	24.13
1	704	178.31
1	705	10.61
1	706	8.38
1	707	40.64
1	708	236.98
1	709	31.24
1	710	52.83
1	711	42.42
1	712	75.44
1	713	36.1
1	714	14.22
1	715	5.6
1	716	.25
1	717	42.42
1	718	17.53
1	719	35.56
1	720	122.68
1	721	153.42
1	722	5.08
1	738	.25
1	743	.25
1	765	3.3
1	770	14.98
1	774	2.54
1	784	36.83
1	785	74.93
1	786	1.52

From file *rainfall.num*, as shown histograms and time series plot on Figure 5 and Figure 6. This program listing is as follows.

Figure 5 and Figure 6

```
getfile rainfall.num
describe hist=1 type=2
setvar y=3 'x=2 1'
track size=13
```

Smoothed rainfall and transformation.

After that, smoothed rainfall data . This program listing is as follows.

```

getfile rainfall.num
sty = getnum;
station = sty(:,1);
day = sty(:,2);
y = sty(:,3);
% days at which salinity is recorded in the bay
days = [76 88 108 122 151 165 178 201 213 229 241 263 303 321 333 348 369 382
402 431 445 472 485 493 507];
ndays = length(days);
% initialise output data array
rho = [0.99 0.98 0.97 0.96];
nrho = length(rho);
rainaccum = zeros(ndays,nrho*3);
% compute accumulated discounted rainfall at each station
tmax = 50;          % span for weighted average
for i=1:3
    si = (station==i);
    y1 = y(si);
    d1 = day(si);
% fill in 0s for rainfall at days when it didn't rain
    rain1 = zeros(608,1);
    rain1(d1) = y1;
% calculate exponentially weighted accumulation
% of rainfall at times when salinity is recorded
% using values of discount factor rho equal to 0.99, 0.98, 0.97, 0.96
    for k=1:nrho
        ik = nrho*(i-1)+k;
        for j=1:ndays
            tj = days(j);
            rainaccum0 = rain1(tj);
            for t=1:tmax

```

```

    rainaccum0 = rainaccum0+rain1(tj-t)*rho(k)^t;
end
rainaccum(j,ik) = rainaccum0;
end
end
end

```

The smoothed rainfall data and transformation and this give rise to the following data file called *rainito.num*. The data as follows.

1	76	1	1.206294	1.064513
1	88	2	6.775622	1.89227
1	108	3	4.658455	1.670119
1	122	4	7.670286	1.972137
1	151	5	36.72925	3.324074
1	165	6	105.3497	4.722926
1	178	7	94.48901	4.554707
1	201	8	138.5844	5.174934
1	213	9	117.789	4.901943
1	229	10	163.8944	5.472529
1	241	11	183.8254	5.685934
1	263	12	191.939	5.768387
1	303	13	205.0579	5.896924
1	321	14	694.5005	8.855726
1	333	15	732.3604	9.013808
1	348	16	919.9809	9.725821
1	369	17	738.9897	9.040924
1	382	18	336.7223	6.957031
1	402	19	101.3348	4.66215
1	431	20	18.14427	2.627725
1	445	21	14.69662	2.449472
1	472	22	1.112932	1.03631
1	485	23	14.82297	2.456472
1	493	24	126.2635	5.01679
1	507	25	122.5737	4.967438
2	76	1	15.342	2.484814
2	88	2	11.12103	2.232107
2	108	3	6.655067	1.88098
2	122	4	25.90698	2.958959
2	151	5	59.64668	3.907168
2	165	6	116.1137	4.878592
2	178	7	103.2092	4.69072
2	201	8	103.9769	4.702321

2	213	9	99.252	4.629987
2	229	10	128.2971	5.043581
2	241	11	154.3584	5.364263
2	263	12	170.941	5.54986
2	303	13	138.8485	5.178219
2	321	14	621.5001	8.53389
2	333	15	920.6432	9.728154
2	348	16	1061.099	10.19965
2	369	17	917.879	9.718408
2	382	18	344.3032	7.008854
2	402	19	104.704	4.713257
2	431	20	0	0
2	445	21	0	0
2	472	22	0	0
2	485	23	69.83737	4.118091
2	493	24	97.43717	4.601593
2	507	25	154.5822	5.366854
3	76	1	3.070945	1.45353
3	88	2	25.83348	2.956158
3	108	3	20.35853	2.730541
3	122	4	16.40237	2.540791
3	151	5	33.7318	3.231071
3	165	6	76.5465	4.245952
3	178	7	67.17116	4.065004
3	201	8	142.3571	5.221473
3	213	9	157.6338	5.40194
3	229	10	134.2185	5.12001
3	241	11	246.7665	6.272327
3	263	12	171.3498	5.554282
3	303	13	405.2332	7.400056
3	321	14	942.1182	9.803213
3	333	15	1109.729	10.35314
3	348	16	1053.637	10.17569
3	369	17	811.9462	9.329157
3	382	18	257.6765	6.363435
3	402	19	82.29797	4.349737
3	431	20	2.889403	1.424304
3	445	21	2.510156	1.359044
3	472	22	23.20004	2.852088
3	485	23	284.3213	6.575617
3	493	24	299.4825	6.690478
3	507	25	252.3772	6.319509

From file *rain.to.num*, as shown histograms and time series plot on Figure 7 and Figure 8. This program listing is as follows.

Figure 7

```
getfile rainto.num
describe hist=1 type=2
```

Figure 8

```
getfile rainto.num
describe hist=1 type=2
```

Figure 9

```
getfile rainto.num
describe hist=1 type=2
setvar y=3 'x=2 1'
track size=13
```

B. Data structure of salinity

The raw data of the salinity collected by the Fisheries Office in 1995-1996 for 14 stations are called *salito.num* and consists of 3 columns (station, day, day ID, salinity), as follows

station	day	dayID	salinity(ppt)	station	day	dayID	salinity(ppt)	station	day	dayID	salinity
1	76	1	28.33	2	76	1	32	3	76	1	31
1	88	2	30	2	88	2	27	3	88	2	29
1	108	3	25.196	2	108	3	30	3	108	3	29
1	122	4	26.684	2	122	4	30	3	122	4	31.09
1	151	5	26	2	151	5	20	3	151	5	29.101
1	165	6	21.775	2	165	6	26	3	165	6	26.181
1	178	7	19.701	2	178	7	14	3	178	7	24.107
1	201	8	18	2	201	8	10	3	201	8	23.578
1	213	9	10	2	213	9	18	3	213	9	22.006
1	229	10	12	2	229	10	10	3	229	10	19.256
1	241	11	9	2	241	11	3	3	241	11	14.426
1	263	12	5	2	263	12	4	3	263	12	14.076
1	303	13	12	2	303	13	3	3	303	13	26
1	321	14	0	2	321	14	0	3	321	14	0
1	333	15	2	2	333	15	1	3	333	15	8

1	348	16	10	2	348	16	6	3	348	16	14
1	369	17	3	2	369	17	0	3	369	17	21
1	382	18	14	2	382	18	8	3	382	18	28
1	402	19	32	2	402	19	26	3	402	19	30
1	431	20	30	2	431	20	28	3	431	20	32
1	445	21	32	2	445	21	30	3	445	21	32
1	472	22	30	2	472	22	28	3	472	22	28
1	485	23	30	2	485	23	29	3	485	23	28
1	493	24	37	2	493	24	35	3	493	24	38
1	507	25	24	2	507	25	22	3	507	25	20
4	76	1	29.2884	5	76	1	32	6	76	1	30
4	88	2	26.4414	5	88	2	27	6	88	2	29
4	108	3	26.1524	5	108	3	25.968	6	108	3	31
4	122	4	27.6424	5	122	4	30	6	122	4	30
4	151	5	25.6534	5	151	5	28	6	151	5	27
4	165	6	22.7334	5	165	6	22.549	6	165	6	22
4	178	7	20	5	178	7	20.475	6	178	7	24
4	201	8	20.1304	5	201	8	18	6	201	8	20
4	213	9	14	5	213	9	16	6	213	9	29
4	229	10	14	5	229	10	14	6	229	10	10
4	241	11	14	5	241	11	3	6	241	11	13
4	263	12	10	5	263	12	10.444	6	263	12	16
4	303	13	16.6384	5	303	13	25	6	303	13	14
4	321	14	2	5	321	14	1.564	6	321	14	6
4	333	15	4.9584	5	333	15	0	6	333	15	2
4	348	16	9	5	348	16	10	6	348	16	14
4	369	17	3	5	369	17	10	6	369	17	10
4	382	18	20	5	382	18	16	6	382	18	24
4	402	19	28	5	402	19	28	6	402	19	26
4	431	20	30	5	431	20	30	6	431	20	32
4	445	21	30	5	445	21	31	6	445	21	32
4	472	22	32	5	472	22	28	6	472	22	30
4	485	23	28	5	485	23	28	6	485	23	28
4	493	24	36	5	493	24	36	6	493	24	36
4	507	25	22	5	507	25	22	6	507	25	20
7	76	1	30	8	76	1	30	9	76	1	32.092
7	88	2	30	8	88	2	30	9	88	2	29.245
7	108	3	30	8	108	3	32	9	108	3	30
7	122	4	35.638	8	122	4	32	9	122	4	30.446
7	151	5	33.649	8	151	5	27	9	151	5	28.457
7	165	6	32	8	165	6	26	9	165	6	25.537
7	178	7	28	8	178	7	22	9	178	7	23.463
7	201	8	35	8	201	8	21.69	9	201	8	22.934
7	213	9	28	8	213	9	12	9	213	9	21.362
7	229	10	28	8	229	10	12	9	229	10	18.612
7	241	11	29	8	241	11	9	9	241	11	13.782
7	263	12	29	8	263	12	12.188	9	263	12	14
7	303	13	25	8	303	13	18.195	9	303	13	21
7	321	14	9.744	8	321	14	0	9	321	14	14
7	333	15	20	8	333	15	6	9	333	15	10
7	348	16	20	8	348	16	12.548	9	348	16	13.792
7	369	17	23	8	369	17	10	9	369	17	17
7	382	18	30	8	382	18	26	9	382	18	26
7	402	19	36.5067	8	402	19	32	9	402	19	30
7	431	20	22	8	431	20	28	9	431	20	32
7	445	21	30	8	445	21	30	9	445	21	18

7	472	22	38	8	472	22	30	9	472	22	28
7	485	23	24	8	485	23	30	9	485	23	30
7	493	24	37	8	493	24	38	9	493	24	32
7	507	25	28	8	507	25	24	9	507	25	20
10	76	1	30.48	11	76	1	32	12	76	1	34
10	88	2	26	11	88	2	30	12	88	2	30
10	108	3	26	11	108	3	29.297	12	108	3	30
10	122	4	24	11	122	4	30	12	122	4	32
10	151	5	29	11	151	5	28.798	12	151	5	27
10	165	6	30	11	165	6	28	12	165	6	26
10	178	7	16	11	178	7	24	12	178	7	24
10	201	8	21	11	201	8	24	12	201	8	20
10	213	9	28	11	213	9	21	12	213	9	16
10	229	10	16	11	229	10	24	12	229	10	20
10	241	11	18	11	241	11	20	12	241	11	8
10	263	12	14	11	263	12	4	12	263	12	14
10	303	13	9	11	303	13	26	12	303	13	24
10	321	14	18	11	321	14	0	12	321	14	4
10	333	15	8	11	333	15	10	12	333	15	6
10	348	16	14	11	348	16	11	12	348	16	13
10	369	17	18	11	369	17	19	12	369	17	11
10	382	18	24	11	382	18	24	12	382	18	26
10	402	19	30	11	402	19	31.6557	12	402	19	32
10	431	20	24	11	431	20	30	12	431	20	27
10	445	21	28	11	445	21	30	12	445	21	30
10	472	22	26	11	472	22	28	12	472	22	30
10	485	23	26	11	485	23	28	12	485	23	30
10	493	24	18	11	493	24	34	12	493	24	38
10	507	25	18	11	507	25	23.501	12	507	25	24
13	76	1	25.3141	14	76	1	32.357				
13	88	2	22	14	88	2	29				
13	108	3	20	14	108	3	32				
13	122	4	21	14	122	4	31				
13	151	5	28	14	151	5	26				
13	165	6	14	14	165	6	20				
13	178	7	26	14	178	7	28				
13	201	8	30	14	201	8	22				
13	213	9	28	14	213	9	21				
13	229	10	28	14	229	10	20				
13	241	11	28	14	241	11	12				
13	263	12	28	14	263	12	15				
13	303	13	17.632	14	303	13	20				
13	321	14	2.742	14	321	14	6				
13	333	15	6	14	333	15	10				
13	348	16	20	14	348	16	11				
13	369	17	10	14	369	17	17				
13	382	18	24	14	382	18	24				
13	402	19	29.5047	14	402	19	32				
13	431	20	24	14	431	20	32				
13	445	21	28	14	445	21	31				
13	472	22	35	14	472	22	28				
13	485	23	20	14	485	23	29				
13	493	24	30	14	493	24	36				
13	507	25	18	14	507	25	24				

From file *salito.num*, as shown histograms and time series plot on Figure 10 and Figure 11. This program listing is as follows.

Figure 10 and Figure 11

```
getfile salito.num
describe hist=1 type=2
setvar y=4 'x=3 1'
track size=13
```

Figure 12 and 13, graph of one-way and two-way anova analysis of the cube of the smoothed rainfall data at three stations, the following programs are used.

Figure 12

```
getfile rainto.num
setvar y=5 'x=1'
compar type=3 test=1
```

Figure 13

```
getfile rainto.num
setvar y=5 'x=1 3'
compar type=3 test=1
```

Figure 14 ,15 and 16, graph of one-way and two-way anova analysis of the salinity at 14 locations, the following programs are used.

Figure 14

```
getfile salito.num
setvar y=4 'x=1'
compar type=3 test=1 font=8
```

Figure 15

```

getfile salito.num
setvar y=4 'x=1 3'
compar type=3 test=1 font=8

```

Figure 16

```

getfile salito.num
setvar y=4 'x=3 1'
compar type=3 test=1 font=8

```

After that, set up data of cube roots of smoothed rainfall data and salinity in *rainsal.num*, and find correlation between each salinity station and rainfall station, the following programs by SPIDA are used.

```

$a:=rainsal.num
%dec 4
corr($a, col=3;;19, p=2)

```

Table 4 and 5, the relationship between salinity each location and rainfall at all three locations and the model for the relationship between salinity and rainfall, the following programs are used.

```

getfile rainsal.num
setvar y=6 'x=3:5'
adjust show=3
setvar y=7 'x=3:5'
adjust show=3
setvar y=8 'x=3:5'
adjust show=3
setvar y=9 'x=3:5'

```

```
adjust show=3
setvar y=10 'x=3:5'
adjust show=3
setvar y=11 'x=3:5'
adjust show=3
setvar y=12 'x=3:5'
adjust show=3
setvar y=13 'x=3:5'
adjust show=3
setvar y=14 'x=3:5'
adjust show=3
setvar y=15 'x=3:5'
adjust show=3
setvar y=16 'x=3:5'
adjust show=3
setvar y=17 'x=3:5'
adjust show=3
setvar y=18 'x=3:5'
adjust show=3
setvar y=19 'x=3:5'
adjust show=3
```

Figure 17 - 20, adjust the salinity at each location for the effect of rainfall, the following programs are used.

```
getfile rainsal.num
%describe
setvar y=6 x=3
adjust out=1
describe res=1
y1 = getnum('res=1');
```

```

y = getnum;
[y(:,6) y1(:,1)]
x=y(:,1);
clf
h = plot(x,y(:,6),'w-');
set(h,'LineWidth',2)
hold on
h = plot(x,y1(:,1),'r:');
set(h,'LineWidth',1)
set(gca,'FontSize',16)
xlabel('day')
%set(gca,'FontSize',16)
%title('salinity at Pattani River mouth, before and after adjustment for rainfall')
%text(-20,42,'salinity at Dato, before and after adjustment for rainfall')

%-----
setvar y=7 x=3
adjust out=1
describe res=1
y1 = getnum('res=1');
y = getnum;
[y(:,7) y1(:,1)]
x=y(:,1);
clf
h = plot(x,y(:,7),'w-');
set(h,'LineWidth',2)
hold on
h = plot(x,y1(:,1),'r:');
set(h,'LineWidth',1)
set(gca,'FontSize',16)
xlabel('day')

```

```

%set(gca,FontSize,16)
%text(-20,42,'salinity at Yaring, before and after adjustment for rainfall')
%-----
setvar y=8 x=3
adjust out=1
describe res=1
y1 = getnum('res=1');
y = getnum;
[y(:,8) y1(:,1)]
x=y(:,1);
clf
h = plot(x,y(:,8),'w-');
set(h,'LineWidth',2)
hold on
h = plot(x,y1(:,1),'r');
set(h,'LineWidth',1)
set(gca,FontSize,16)
xlabel('day')
%set(gca,FontSize,16)
%text(-20,42,'salinity at Middle Bay, before and after adjustment for rainfall')
%-----
setvar y=9 x=3
adjust out=1
describe res=1
y1 = getnum('res=1');
y = getnum;
[y(:,9) y1(:,1)]
x=y(:,1);
clf
h = plot(x,y(:,9),'w-');
set(h,'LineWidth',2)

```



```

hold on
h = plot(x,y1(:,1),'r:');
set(h,'LineWidth',1)
set(gca,'FontSize',16)
xlabel('day')
%-----
%set(gca,'FontSize',16)
%text(-20,42,'salinity at Parae, before and after adjustment for rainfall')
%-----
setvar y=10 x=3
adjust out=1
describe res=1
y1 = getnum('res=1');
y = getnum;
[y(:,10) y1(:,1)]
x=y(:,1);
clf
h = plot(x,y(:,10),'w-');
set(h,'LineWidth',2)
hold on
h = plot(x,y1(:,1),'r:');
set(h,'LineWidth',1)
set(gca,'FontSize',16)
xlabel('day')
%-----
setvar y=11 x=3
adjust out=1
describe res=1
y1 = getnum('res=1');
y = getnum;
[y(:,11) y1(:,1)]

```

```
x=y(:,1);
clf
h = plot(x,y(:,11),'w-');
set(h,'LineWidth',2)
hold on
h = plot(x,y1(:,1),'r:');
set(h,'LineWidth',1)
set(gca,'FontSize',16)
xlabel('day')
%-----
setvar y=12 x=5
adjust out=1
describe res=1
y1 = getnum('res=1');
y = getnum;
[y(:,12) y1(:,1)]
x=y(:,1);
clf
h = plot(x,y(:,12),'w-');
set(h,'LineWidth',2)
hold on
h = plot(x,y1(:,1),'r:');
set(h,'LineWidth',1)
set(gca,'FontSize',16)
xlabel('day')
%-----
setvar y=13 x=3
adjust out=1
describe res=1
y1 = getnum('res=1');
y = getnum;
```

```
[y(:,13) y1(:,1)]
x=y(:,1);
clf
h = plot(x,y(:,13),'w-');
set(h,'LineWidth',2)
hold on
h = plot(x,y1(:,1),'r:');
set(h,'LineWidth',1)
set(gca,'FontSize',16)
xlabel('day')
%-----
setvar y=14 x=3
adjust out=1
describe res=1
y1 = getnum('res=1');
y = getnum;
[y(:,14) y1(:,1)]
x=y(:,1);
clf
h = plot(x,y(:,14),'w-');
set(h,'LineWidth',2)
hold on
h = plot(x,y1(:,1),'r:');
set(h,'LineWidth',1)
set(gca,'FontSize',16)
xlabel('day')
%-----
setvar y=15 x=5
adjust out=1
describe res=1
y1 = getnum('res=1');
```

```
y = getnum;
[y(:,15) y1(:,1)]
x=y(:,1);
clf
h = plot(x,y(:,15),'w-');
set(h,'LineWidth',2)
hold on
h = plot(x,y1(:,1),'r:');
set(h,'LineWidth',1)
set(gca,'FontSize',16)
xlabel('day')
%-----
setvar y=16 x=3
adjust out=1
describe res=1
y1 = getnum('res=1');
y = getnum;
[y(:,16) y1(:,1)]
x=y(:,1);
clf
h = plot(x,y(:,16),'w-');
set(h,'LineWidth',2)
hold on
h = plot(x,y1(:,1),'r:');
set(h,'LineWidth',1)
set(gca,'FontSize',16)
xlabel('day')
%-----
setvar y=17 x=3
adjust out=1
describe res=1
```

```
y1 = getnum('res=1');
y = getnum;
[y(:,17) y1(:,1)]
x=y(:,1);
clf
h = plot(x,y(:,17),'w-');
set(h,'LineWidth',2)
hold on
h = plot(x,y1(:,1),'r:');
set(h,'LineWidth',1)
set(gca,'FontSize',16)
xlabel('day')
%-----
setvar y=18 x=5
adjust out=1
describe res=1
y1 = getnum('res=1');
y = getnum;
[y(:,18) y1(:,1)]
x=y(:,1);
clf
h = plot(x,y(:,18),'w-');
set(h,'LineWidth',2)
hold on
h = plot(x,y1(:,1),'r:');
set(h,'LineWidth',1)
set(gca,'FontSize',16)
xlabel('day')
%-----
setvar y=19 x=3
adjust out=1
```

```
describe res=1
y1 = getnum('res=1');
y = getnum;
[y(:,19) y1(:,1)]
x=y(:,1);
clf
h = plot(x,y(:,19),'w-');
set(h,'LineWidth',2)
hold on
h = plot(x,y1(:,1),'r');
set(h,'LineWidth',1)
set(gca,'FontSize',16)
xlabel('day')
%-----
```