

**A**

	macroinv.	other inv.	out	Sum	Recall	1-Precision
macroinv.	<b>209</b>	36	5	250	0,84	0,24
other inv.	14	<b>224</b>	12	250	0,90	0,19
out	51	15	<b>184</b>	250	0,74	0,08
Sum	274	275	201	750		

Error rate= 0.1773

**B**

	macroinv.	other inv.	out	Sum	Recall	1-Precision
macroinv.	<b>436</b>	55	9	500	0,87	0,17
other inv.	35	<b>437</b>	28	500	0,87	0,13
out	53	10	<b>437</b>	500	0,87	0,08
Sum	524	502	474	1500		

Error rate= 0.1267

**C**

	macroinv.	other inv.	out	Sum	Recall	1-Precision
macroinv.	<b>1365</b>	92	43	1500	0,91	0,15
other inv.	62	<b>1340</b>	98	1500	0,89	0,12
out	186	88	<b>1226</b>	1500	0,82	0,10
Sum	1613	1520	1367	4500		

Error rate= 0.1264

D

	macroinv.	other inv.	out	Sum	Recall	1-Precision
macroinv.	<b>2232</b>	127	186	2545	0,88	0,20
other inv.	89	<b>1961</b>	125	2175	0,90	0,13
out	481	155	<b>1784</b>	2420	0,74	0,15
Sum	2802	2243	2095	7140		

Error rate= 0.1629

E

	macroinv.	other inv.	out	out_aggregates	out_heads	Sum	Recall	1-Precision
macroinv.	<b>125</b>	18	1	44	62	250	0,50	0,48
other inv.	11	<b>211</b>	11	2	15	250	0,84	0,23
out	8	11	<b>224</b>	0	7	250	0,90	0,09
out_aggregates	41	0	4	<b>180</b>	25	250	0,72	0,33
out_heads	54	34	6	43	<b>113</b>	250	0,45	0,49
Sum	239	274	246	269	222	1250		

Error rate= 0.3176

**F**

	macroinv.	other inv.	out	out_aggregates	out_heads	Sum	Recall	1-Precision
macroinv.	<b>296</b>	29	3	55	117	500	0,59	0,36
other inv.	18	<b>435</b>	19	3	25	500	0,87	0,19
out	12	12	<b>472</b>	0	4	500	0,94	0,05
out_aggregates	53	0	0	<b>404</b>	43	500	0,81	0,22
out_heads	87	61	1	56	<b>295</b>	500	0,59	0,39
Sum	466	537	495	518	484	2500		

Error rate= 0.2392

**G**

	macroinv.	other inv.	out	out_aggregates	out_heads	Sum	Recall	1-Precision
macroinv.	<b>301</b>	29	3	52	115	500	0,60	0,36
other inv.	17	<b>435</b>	19	2	27	500	0,87	0,19
out	12	11	<b>474</b>	0	3	500	0,95	0,04
out_aggregates	46	1	0	<b>409</b>	44	500	0,82	0,21
out_heads	91	61	0	56	<b>292</b>	500	0,58	0,39
Sum	467	537	496	519	481	<b>2500</b>		

H

	macroinv_long	macroinv_long_spiky	macroinv_round	macroinv_round_shell	macroinv_long_smooth	other_cladocera	other_copepoda	other_ostracoda	out_aggregates	out_fibers	out_heads	out_legs	out_stains	out_stains_dark	out_stains_lightgrey	out_stains_round	Sum	Recall	1-Precision
macroinv_long	<b>72</b>	29	6	6	42	0	1	0	62	1	17	11	0	1	0	0	248	0,29	0,64
macroinv_long_spiky	10	<b>186</b>	8	1	18	0	1	0	10	0	11	0	0	5	0	0	250	0,74	0,33
macroinv_round	13	3	<b>145</b>	21	3	8	4	4	2	0	30	0	0	17	0	0	250	0,58	0,43
macroinv_round_shell	0	10	8	<b>178</b>	0	5	0	28	0	0	14	0	0	5	0	0	248	0,72	0,28
macroinv_long_smooth	31	12	1	1	<b>151</b>	0	2	0	26	3	5	17	0	1	0	0	250	0,60	0,46
other_cladocera	0	0	6	1	0	<b>186</b>	2	37	0	0	10	5	0	3	0	0	250	0,74	0,31
other_copepoda	0	0	6	0	0	1	<b>205</b>	3	0	0	0	31	0	4	0	0	250	0,82	0,19
other_ostracoda	2	0	5	16	0	57	9	<b>88</b>	1	0	16	0	2	20	0	9	225	0,39	0,51
out_aggregates	43	29	17	1	35	0	0	0	<b>109</b>	0	11	5	0	0	0	0	250	0,44	0,52
out_fibers	2	1	0	0	5	0	0	0	5	<b>211</b>	0	24	2	0	0	0	250	0,84	0,12
out_heads	14	8	35	19	7	13	4	12	5	0	<b>124</b>	0	0	9	0	0	250	0,50	0,52
out_legs	13	0	0	0	20	0	25	1	7	10	4	<b>157</b>	2	4	0	7	250	0,63	0,41
out_stains	0	0	0	0	0	0	0	0	0	11	0	0	<b>142</b>	0	65	32	250	0,57	0,36
out_stains_dark	0	0	18	3	1	0	0	7	2	0	16	6	0	<b>197</b>	0	0	250	0,79	0,26
out_stains_lightgrey	0	0	0	0	0	0	0	0	0	0	0	0	65	0	<b>184</b>	1	250	0,74	0,28
out_stains_round	0	0	0	0	0	0	0	0	0	3	0	8	10	0	8	<b>220</b>	249	0,88	0,18
Sum	200	278	255	247	282	270	253	180	229	239	258	264	223	266	257	269	<b>3970</b>		

Error rate= 0.3564

	macroinv_long	macroinv_long_spiky	macroinv_round	macroinv_round_shell	macroinv_long_smooth	other_cladocera	other_copepoda	other_ostracoda	out_agregates	out_fibers	out_heads	out_legs	out_stains	out_stains_dark	out_stains_lightgrey	out_stains_round	Sum	Recall	1-Precision
macroinv_long	<b>168</b>	51	18	2	68	0	10	0	102	0	66	14	0	1	0	0	500	0,34	0,59
macroinv_long_spiky	26	<b>341</b>	23	6	26	0	5	0	26	0	43	0	0	4	0	0	500	0,68	0,32
macroinv_round	7	9	<b>335</b>	55	0	18	5	1	3	0	54	0	0	18	0	0	505	0,66	0,40
macroinv_round_shell	0	11	24	<b>389</b>	0	18	1	15	0	0	27	0	0	15	0	0	500	0,78	0,28
macroinv_long_smooth	65	31	6	0	<b>341</b>	0	5	0	35	2	10	20	0	0	0	0	515	0,66	0,35
other_cladocera	1	0	12	13	0	<b>426</b>	8	26	2	0	8	2	0	12	0	0	510	0,84	0,25
other_copepoda	12	0	16	0	0	8	<b>404</b>	0	0	0	4	54	0	12	0	0	510	0,79	0,25
other_ostracoda	1	0	14	18	0	72	8	<b>52</b>	1	0	11	2	0	29	0	12	220	0,24	0,49
out_agregates	65	31	6	0	34	1	1	0	<b>317</b>	1	44	0	0	0	0	0	500	0,63	0,40
out_fibers	8	0	0	0	5	0	0	0	8	<b>459</b>	0	25	5	0	0	0	510	0,90	0,07
out_heads	35	31	64	43	31	14	22	2	27	0	<b>216</b>	2	0	8	0	0	495	0,44	0,56
out_legs	16	0	2	0	16	4	51	0	5	7	3	<b>382</b>	1	18	0	0	505	0,76	0,26
out_stains	0	0	0	0	0	0	0	0	0	20	0	4	<b>314</b>	0	133	29	500	0,63	0,27
out_stains_dark	1	0	38	12	0	7	16	2	0	0	6	5	0	<b>413</b>	0	0	500	0,83	0,23
out_stains_lightgrey	0	0	0	0	0	0	0	0	0	0	0	0	95	0	<b>399</b>	6	500	0,80	0,25
out_stains_round	0	0	0	0	0	1	0	3	0	4	0	4	15	8	2	<b>463</b>	500	0,93	0,09
Sum	405	505	558	538	521	569	536	101	526	493	492	514	430	538	534	510	7770		

Error rate= 0.3026

J

	macroinv_long	macroinv_long_spiky	macroinv_round	macroinv_round_shell	macroinv_long_smooth	other_cladocera	other_copepoda	other_ostracoda	out_agregates	out_fibers	out_heads	out_legs	out_stains	out_stains_dark	out_stains_lightgrey	out_stains_round	Sum	Recall	1-Precision
macroinv_long	<b>794</b>	17	5	167	87	0	29	0	265	1	150	5	0	0	0	0	1520	0,52	0,49
macroinv_long_spiky	1	<b>1132</b>	106	1	20	34	23	1	16	0	156	0	0	35	0	0	1525	0,74	0,33
macroinv_round	3	58	<b>1281</b>	0	34	74	1	4	1	0	34	0	0	5	0	0	1495	0,86	0,20
macroinv_round_shell	167	14	0	<b>1093</b>	60	2	22	0	68	5	46	23	0	0	0	0	1500	0,73	0,26
macroinv_long_smooth	122	26	17	86	<b>1025</b>	6	9	0	91	0	108	0	0	10	0	0	1500	0,68	0,26
other_cladocera	0	34	39	0	0	<b>1262</b>	63	6	8	0	28	7	0	51	0	2	1500	0,84	0,25
other_copepoda	18	19	0	3	1	57	<b>1197</b>	0	4	9	30	130	0	32	0	0	1500	0,80	0,23
other_ostracoda	0	8	41	0	0	104	11	<b>19</b>	1	0	13	0	0	16	0	17	230	0,08	0,42
out_agregates	281	23	4	50	85	9	4	0	<b>1146</b>	11	70	4	2	1	0	0	1690	0,68	0,33
out_fibers	13	0	0	10	0	0	12	0	37	<b>1320</b>	2	60	37	9	0	0	1500	0,88	0,08
out_heads	133	265	69	25	66	73	47	0	70	0	<b>725</b>	3	0	24	0	0	1500	0,48	0,49
out_legs	12	2	0	40	2	4	127	0	9	29	13	<b>1235</b>	21	4	0	2	1500	0,82	0,19
out_stains	0	4	0	0	0	0	8	0	1	63	2	25	<b>1053</b>	24	226	94	1500	0,70	0,21
out_stains_dark	3	100	37	7	2	52	6	2	5	1	46	14	3	<b>1209</b>	0	13	1500	0,81	0,16
out_stains_lightgrey	0	0	0	0	0	0	0	0	0	0	0	0	119	0	<b>1300</b>	81	1500	0,87	0,17
out_stains_round	0	0	0	0	0	7	2	1	0	2	0	13	100	18	41	<b>1316</b>	1500	0,88	0,14
Sum	1547	1702	1599	1482	1382	1684	1561	33	1722	1441	1423	1519	1335	1438	1567	1525	22960		

Error rate= 0.2549

K

	macroinv_long	macroinv_long_round	macroinv_long_smooth	macroinv_long_spiky	macroinv_long__smooth_dark	macroinv_round	macroinv_round_dark	macroinv_round_shell	macroinv_shell_dark	other_cladocera	other_copepoda	other_ostracoda	out_agregates	out_fibers	out_heads	out_legs	out_stains	out_stains_dark	out_stains_lightgrey	out_stains_round	Sum	Recall	1-Precision
macroinv_long	<b>61</b>	10	24	31	22	7	1	4	4	0	0	0	57	5	13	10	0	1	0	0	250	0,24	0,74
macroinv_long_round	3	<b>132</b>	15	6	51	0	9	0	4	3	0	0	6	0	20	4	0	2	0	0	255	0,52	0,49
macroinv_long_smooth	25	9	<b>152</b>	0	15	0	0	0	0	0	5	0	30	6	0	8	0	0	0	0	250	0,61	0,39
macroinv_long_spiky	14	3	7	<b>172</b>	10	6	5	0	1	0	1	0	12	0	16	0	0	3	0	0	250	0,69	0,33
macroinv_long__smooth_dark	24	35	9	9	<b>154</b>	1	7	0	0	0	0	0	4	0	5	0	0	2	0	0	250	0,62	0,46
macroinv_round	3	0	0	0	0	<b>217</b>	5	0	0	5	4	4	0	0	10	0	0	2	0	0	250	0,87	0,31
macroinv_round_dark	11	21	0	5	1	14	<b>136</b>	0	41	0	1	1	4	0	10	3	0	2	0	0	250	0,54	0,40
macroinv_round_shell	1	1	0	0	0	5	0	<b>187</b>	14	14	0	23	0	0	3	0	0	2	0	0	250	0,75	0,27
macroinv_shell_dark	0	15	0	1	0	5	16	22	<b>177</b>	0	0	8	0	0	3	0	0	3	0	0	250	0,71	0,36
other_cladocera	0	0	0	0	0	14	0	15	0	<b>169</b>	1	44	0	0	5	2	0	0	0	0	250	0,68	0,34
other_copepoda	0	0	0	0	0	8	0	0	0	1	<b>213</b>	1	0	0	0	26	0	1	0	0	250	0,85	0,20
other_ostracoda	1	1	0	0	0	6	9	25	9	53	7	<b>77</b>	0	0	13	0	0	16	0	8	225	0,34	0,54
out_agregates	59	4	19	22	15	0	6	0	0	0	0	0	<b>102</b>	2	13	8	0	0	0	0	250	0,41	0,55
out_fibers	9	0	6	0	0	0	0	1	0	0	0	0	4	<b>211</b>	0	16	3	0	0	0	250	0,84	0,19
out_heads	5	20	4	8	10	26	10	0	19	11	5	7	5	0	<b>115</b>	0	0	5	0	0	250	0,46	0,51
out_legs	15	3	13	2	0	0	0	0	0	1	29	0	3	14	0	<b>166</b>	0	2	0	2	250	0,66	0,33
out_stains	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	<b>101</b>	0	97	36	250	0,40	0,45
out_stains_dark	0	7	0	0	5	6	22	1	7	0	1	1	0	0	9	4	0	<b>187</b>	0	0	250	0,75	0,19
out_stains_lightgrey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	0	<b>180</b>	1	250	0,72	0,37
out_stains_round	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	2	11	3	7	<b>221</b>	250	0,88	0,18
Sum	231	261	249	256	283	315	226	255	276	257	267	166	227	260	235	249	184	231	284	268	4980		

Error rate= 0.3715

L

	macroinv_long	macroinv_long_round	macroinv_long_smooth	macroinv_long_spiky	macroinv_long_smooth_dark	macroinv_round	macroinv_round_dark	macroinv_round_shell	macroinv_shell_dark	other_cladocera	other_copepoda	other_ostracoda	out_agregates	out_fibers	out_heads	out_legs	out_stains	out_stains_dark	out_stains_lightgrey	out_stains_round	Sum	Recall	1-Precision
macroinv_long	<b>215</b>	22	36	66	20	3	2	1	3	0	11	0	71	0	46	9	0	0	0	0	505	0,43	0,48
macroinv_long_round	7	<b>288</b>	26	16	82	0	9	5	9	3	4	3	13	0	40	2	0	3	0	0	510	0,56	0,45
macroinv_long_smooth	34	4	<b>362</b>	12	22	0	3	0	1	0	4	0	25	5	8	19	0	1	0	0	500	0,72	0,32
macroinv_long_spiky	44	13	7	<b>350</b>	18	0	9	1	3	0	10	0	14	0	40	0	0	1	0	0	510	0,69	0,39
macroinv_long_smooth_dark	15	66	23	29	<b>316</b>	2	10	0	8	0	0	0	13	0	15	3	0	0	0	0	500	0,63	0,36
macroinv_round	0	4	0	1	0	<b>402</b>	43	11	1	20	6	1	0	0	4	1	0	5	0	1	500	0,80	0,28
macroinv_round_dark	1	23	0	16	4	41	<b>335</b>	8	45	3	2	0	6	0	14	0	0	7	0	0	505	0,66	0,31
macroinv_round_shell	2	25	0	4	2	12	13	<b>307</b>	28	50	4	14	5	0	23	0	0	15	0	1	505	0,61	0,37
macroinv_shell_dark	1	20	0	15	0	1	14	33	<b>382</b>	0	0	0	0	0	25	0	0	9	0	0	500	0,76	0,28
other_cladocera	0	0	0	0	0	23	0	40	0	<b>382</b>	16	20	2	0	7	2	0	8	0	0	500	0,76	0,31
other_copepoda	4	1	0	0	0	18	0	0	0	10	<b>423</b>	1	1	2	4	43	0	8	0	0	515	0,82	0,24
other_ostracoda	0	2	0	0	0	2	7	39	1	61	6	<b>65</b>	2	0	9	1	0	27	0	13	235	0,28	0,43
out_agregates	44	1	36	28	4	1	2	3	0	1	4	0	<b>340</b>	1	34	1	0	0	0	0	500	0,68	0,36
out_fibers	2	0	13	0	0	0	0	0	0	0	0	0	8	<b>445</b>	0	29	13	0	0	0	510	0,87	0,09
out_heads	33	42	9	35	23	37	10	23	35	12	17	3	26	0	<b>180</b>	5	0	10	0	0	500	0,36	0,61
out_legs	8	2	20	0	0	5	0	0	0	4	42	1	5	10	1	<b>392</b>	1	14	0	0	505	0,78	0,26
out_stains	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	5	<b>323</b>	0	116	31	500	0,65	0,23
out_stains_dark	0	6	1	0	0	7	28	13	15	6	6	3	0	0	12	15	0	<b>388</b>	0	0	500	0,78	0,24
out_stains_lightgrey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71	0	<b>421</b>	8	500	0,84	0,23
out_stains_round	0	0	0	0	0	1	0	0	0	0	0	3	0	2	0	3	11	12	10	<b>458</b>	500	0,92	0,11
Sum	410	519	533	572	491	555	485	484	531	552	555	114	531	490	462	530	419	508	547	512	9800		

Error rate= 0.3088



M

	macroinv_long	macroinv_long_round	macroinv_long_smooth	macroinv_long_spiky	macroinv_long__smooth_dark	macroinv_round	macroinv_round_dark	macroinv_round_shell	macroinv_shell_dark	other_cladocera	other_copepoda	other_ostracoda	out_agregates	out_fibers	out_heads	out_legs	out_stains	out_stains_dark	out_stains_lightgrey	out_stains_round	Sum	Recall	1-Precision
macroinv_long	<b>696</b>	11	169	117	57	6	4	2	4	1	31	0	248	7	171	11	0	0	0	0	1535	0,45	0,52
macroinv_long_round	4	<b>161</b>	28	20	98	0	22	0	21	0	4	0	8	0	71	0	0	3	0	0	440	0,37	0,37
macroinv_long_smooth	144	4	<b>1096</b>	13	83	12	8	0	0	0	23	0	48	14	39	25	0	1	0	0	1510	0,73	0,28
macroinv_long_spiky	88	3	15	<b>1086</b>	71	13	21	2	12	6	10	0	91	0	80	0	0	12	0	0	1510	0,72	0,30
macroinv_long__smooth_dark	39	11	84	59	<b>1184</b>	4	35	1	6	2	3	0	32	0	40	0	0	0	0	0	1500	0,79	0,25
macroinv_round	5	0	0	17	0	<b>1187</b>	130	1	11	77	11	0	2	0	54	0	0	5	0	0	1500	0,79	0,25
macroinv_round_dark	7	21	0	53	4	87	<b>1083</b>	6	100	6	23	3	19	0	67	0	0	21	0	0	1500	0,72	0,34
macroinv_round_shell	2	1	1	2	0	12	6	<b>205</b>	36	98	0	6	0	0	27	0	0	4	0	0	400	0,51	0,26
macroinv_shell_dark	1	13	0	32	0	8	57	19	<b>618</b>	5	4	4	0	0	35	0	0	9	0	0	805	0,77	0,30
other_cladocera	1	0	0	1	0	55	4	17	0	<b>1411</b>	76	9	2	0	50	3	0	61	0	0	1690	0,83	0,27
other_copepoda	10	0	1	0	0	19	5	0	0	62	<b>1256</b>	0	3	12	20	107	0	20	0	0	1515	0,83	0,22
other_ostracoda	0	0	0	0	0	2	12	8	9	127	10	<b>20</b>	0	0	14	0	0	16	0	17	235	0,09	0,55
out_agregates	299	0	39	89	19	6	39	0	0	5	1	0	<b>956</b>	20	57	3	2	0	0	0	1535	0,62	0,36
out_fibers	10	0	21	0	0	0	0	0	0	0	5	0	33	<b>1347</b>	1	58	31	9	0	0	1515	0,89	0,10
out_heads	141	25	22	67	41	141	113	9	46	79	37	0	42	0	<b>730</b>	2	0	25	0	0	1520	0,48	0,52
out_legs	12	2	37	1	0	1	1	0	0	4	102	0	8	26	18	<b>1262</b>	13	8	0	5	1500	0,84	0,17
out_stains	0	0	0	0	0	2	1	0	0	6	7	1	0	72	3	24	<b>897</b>	44	309	134	1500	0,60	0,27
out_stains_dark	2	3	0	0	12	19	106	6	16	46	11	1	4	1	46	16	3	<b>1195</b>	0	13	1500	0,80	0,18
out_stains_lightgrey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	192	0	<b>1236</b>	72	1500	0,82	0,21
out_stains_round	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0	13	96	32	16	<b>1337</b>	1500	0,89	0,15
Sum	1461	255	1513	1557	1569	1574	1647	276	879	1940	1614	44	1496	1500	1523	1524	1234	1465	1561	1578	26210		

Error rate= 0.2765

