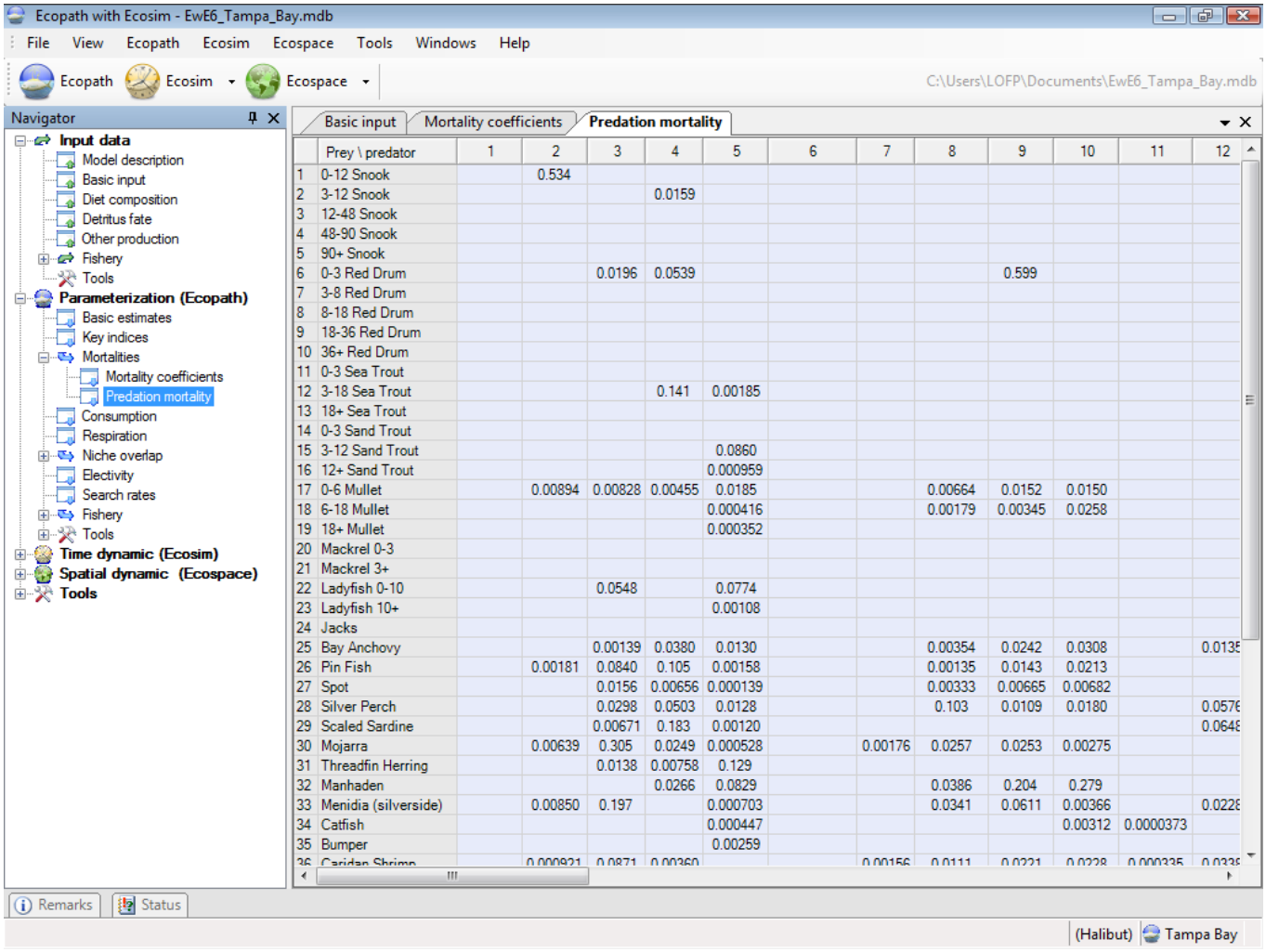
7.7 Predation mortality

The predation mortality of a group (*i*) is the sum of the consumption of *i* by the other groups, divided by the biomass of group (*i*). Predation mortality is calculated in the program, i.e., it is *not* an input parameter. Predation mortality corresponds to what is called **M2** in some other models.

The *Predation mortality* form (Figure 7.2) is very important and should be checked frequently when balancing a model.

To begin with, the Mortality coefficients form will guide you to particular mortality coefficients that are causing problems with balancing. If predation mortality is too high then the *Predation mortality* form will help you identify which predators are causing the problem for a particular prey group.

To help you identify possible problem predators, cells with unusually high predation mortalities will be shown with a different-coloured background instead of the usual blue background. Note that this is intended as a guide only to show which predators are contributing most to a prey species' mortality. You should use the literature, expert opinion and your understanding of the ecosystem to decide which predation mortalities should be changed and by how much.



	Prey \ predator	1	2	3	4	5	6	7	8	9	10	11	12
1	0-12 Snook		0.534										
2	3-12 Snook				0.0159								
3	12-48 Snook												
4	48-90 Snook												
5	90+ Snook												
6	0-3 Red Drum			0.0196	0.0539					0.599			
7	3-8 Red Drum												
8	8-18 Red Drum												
9	18-36 Red Drum												
10	36+ Red Drum												
11	0-3 Sea Trout												
12	3-18 Sea Trout				0.141	0.00185							
13	18+ Sea Trout												
14	0-3 Sand Trout												
15	3-12 Sand Trout					0.0860							
16	12+ Sand Trout					0.000959							
17	0-6 Mullet		0.00894	0.00828	0.00455	0.0185			0.00664	0.0152	0.0150		
18	6-18 Mullet					0.000416			0.00179	0.00345	0.0258		
19	18+ Mullet					0.000352							
20	Mackrel 0-3												
21	Mackrel 3+												
22	Ladyfish 0-10			0.0548		0.0774							
23	Ladyfish 10+					0.00108							
24	Jacks												
25	Bay Anchovy			0.00139	0.0380	0.0130			0.00354	0.0242	0.0308		0.0135
26	Pin Fish		0.00181	0.0840	0.105	0.00158			0.00135	0.0143	0.0213		
27	Spot			0.0156	0.00656	0.000139			0.00333	0.00665	0.00682		
28	Silver Perch			0.0298	0.0503	0.0128			0.103	0.0109	0.0180		0.0576
29	Scaled Sardine			0.00671	0.183	0.00120							0.0648
30	Mojarra		0.00639	0.305	0.0249	0.000528		0.00176	0.0257	0.0253	0.00275		
31	Threadfin Herring			0.0138	0.00758	0.129							
32	Manhaden				0.0266	0.0829			0.0386	0.204	0.279		
33	Menidia (silverside)		0.00850	0.197		0.000703			0.0341	0.0611	0.00366		0.0228
34	Catfish					0.000447					0.00312	0.0000373	
35	Bumper					0.00259							
36	Caridan Shrimp		0.000921	0.0871	0.00360			0.00156	0.0111	0.0221	0.0228	0.000335	0.0336

Figure 7.2 Predation mortality form showing the quantitatively important predators and prey for all groups. This screen can be used to great advantage when balancing a model with one or several values of EE>1, to identify the consumers (in columns) exerting the strongest pressure on the group(s) (in rows) with excessively high EE values.