

Response function summary

```
RFxSum <- read_csv("Response_Fx_Summary.csv")
```

```
## Parsed with column specification:
## cols(
##   Study = col_character(),
##   Chemical = col_character(),
##   Class = col_character(),
##   Pathway = col_character(),
##   Species = col_character(),
##   Type = col_character(),
##   Response = col_character()
## )
```

```
table(RFxSum$Chemical, RFxSum$Pathway)
```

```
##
##           bottom-up direct larvae direct snail top-down
## 2,4-D           0           0           0           3
## Ammonium Phosphate 0           2           1           0
## Atrazine          3           3           3           0
## Azinphos-methyl   0           0           1           0
## Butachlor          0           2           1           1
## Butralin           0           2           2           0
## Carbaryl           0           0           0           5
## Carbofuran        0           0           0           1
## Chlorpyrifos       0           2           3           4
## Cypermethrin       0           0           0           1
## Deltamethrin       0           0           1           1
## Diazinon           0           0           2           0
## Dichlorvos         0           0           0           1
## Dimethoate         0           0           0           1
## Endosulfan         0           0           2           3
## Esfenvalerate      0           0           0           1
## Fenitrothion       0           0           0           3
## Fertilizer         2           0           5           0
## Fluazifop-p-butyl  0           2           1           0
## Glyphosate         0           4           4           0
## Lambda-cyhalothrin 0           0           0           2
## Malathion          0           2           5           2
## Methyldemeton      0           0           0           1
## Metolachlor        0           1           0           0
## Monocrotophos      0           0           0           1
## MSMA              0           0           0           1
## Oryzalin           0           0           0           1
## Paraquat           0           0           1           0
## Pendimethalin      0           2           2           0
## Permethrin         0           0           0           1
## Phosphamidon       0           0           0           1
## Potassium Sulphate 0           0           1           0
```

```
## Profenofos      0      2      3      2
## Quinalphos     0      0      0      1
## Terbufos       0      0      0      2
## Tributyltin     0      0      0      1
## Trifluralin    0      0      0      2
## Urea           0      2      1      0
```

```
RFxSum %>%
  group_by(Chemical, Pathway) %>%
  summarise(n = n()) %>%
  spread(key = Pathway, value = n) %>%
  rename("bottom_up" = !!names(.[2]),
         "direct_larvae" = !!names(.[3]),
         "direct_snail" = !!names(.[4]),
         "top_down" = !!names(.[5]),) %>%
  mutate(num_records = sum(bottom_up, direct_larvae,
                           direct_snail, top_down, na.rm = TRUE)) %>%
  filter(num_records > 1) %>%
  select(-num_records) %>%
  replace_na(list("bottom_up" = 0,
                  "direct_larvae" = 0,
                  "direct_snail" = 0,
                  "top_down" = 0)) %>%
  knitr::kable()
```

Chemical	bottom_up	direct_larvae	direct_snail	top_down
2,4-D	0	0	0	3
Ammonium Phosphate	0	2	1	0
Atrazine	3	3	3	0
Butachlor	0	2	1	1
Butralin	0	2	2	0
Carbaryl	0	0	0	5
Chlorpyrifos	0	2	3	4
Deltamethrin	0	0	1	1
Diazinon	0	0	2	0
Endosulfan	0	0	2	3
Fenitrothion	0	0	0	3
Fertilizer	2	0	5	0
Fluazifop-p-butyl	0	2	1	0
Glyphosate	0	4	4	0
Lambda-cyhalothrin	0	0	0	2
Malathion	0	2	5	2
Pendimethalin	0	2	2	0
Profenofos	0	2	3	2
Terbufos	0	0	0	2
Trifluralin	0	0	0	2
Urea	0	2	1	0