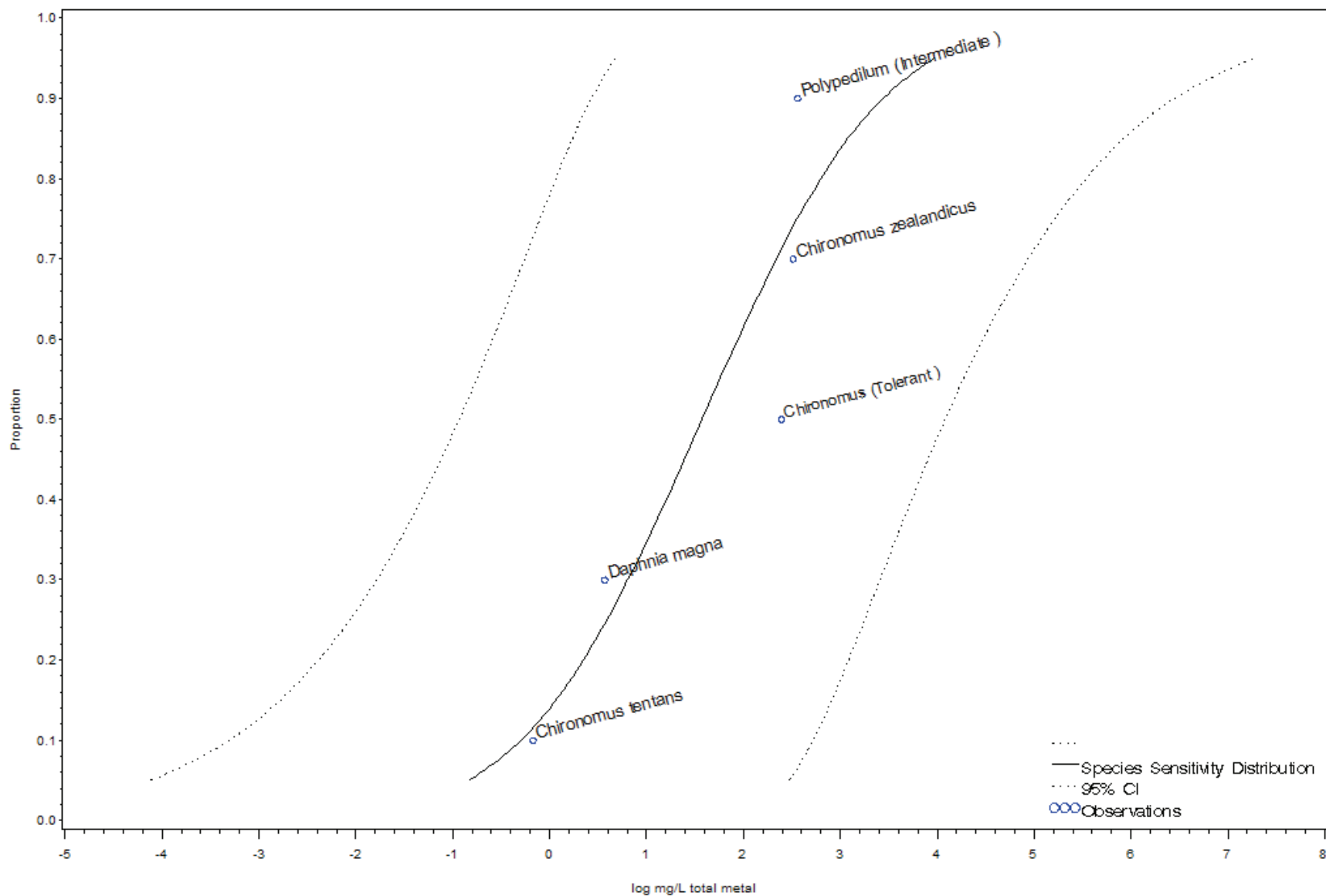


APPENDIX B
Arthropod Species Sensitivity Distributions

Arsenic SSD for Arthropods - in water at T<=15C over moderate (1-3 days) exposure



Species Sensitivity Distribution (SSD 1) data for arthropod species exposed to arsenic in water at T<=15C over moderate (1-3 days) exposure

| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|---------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 5 | 0.68679 | 3.91782 | 0.80909 | 1.57570 | 6.57784 | 3 | 0.24403 |

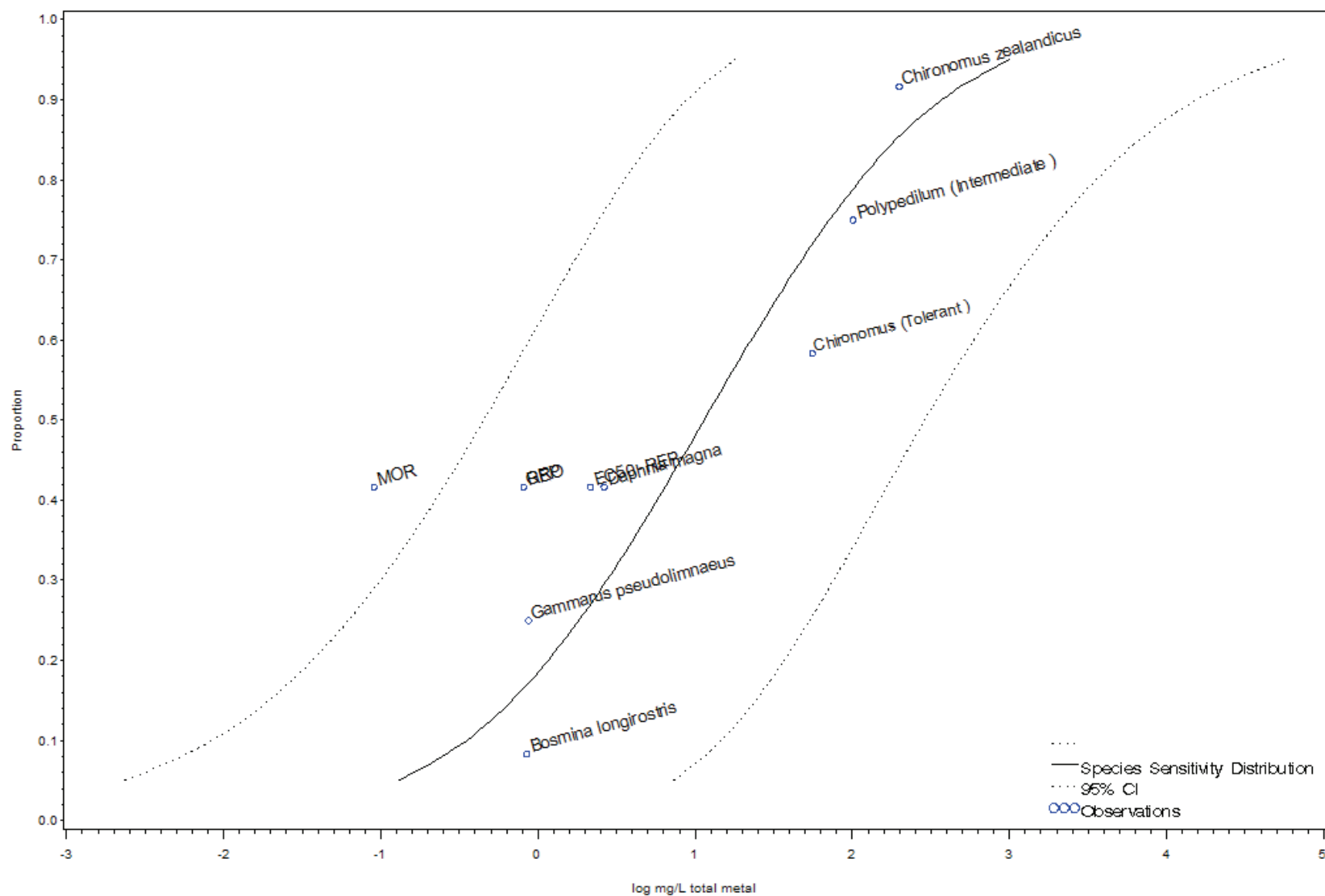
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|------------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.15 | 41.43 | 0.0006 | -0.81928 | 1.61730 | -3.25587 | 273.263 |
| 0.10 | 3.71845 | 0.51 | 86.24 | 0.0030 | -0.29030 | 1.93571 | -2.51631 | 168.265 |
| 0.20 | 4.15838 | 2.24 | 236.19 | 0.0212 | 0.35026 | 2.37326 | -1.67274 | 105.428 |
| 0.25 | 4.32551 | 3.92 | 361.34 | 0.0426 | 0.59361 | 2.55792 | -1.37070 | 92.100 |
| 0.30 | 4.47560 | 6.49 | 541.62 | 0.0777 | 0.81215 | 2.73369 | -1.10940 | 83.461 |
| 0.50 | 5.00000 | 37.64 | 2691.44 | 0.5265 | 1.57570 | 3.42998 | -0.27859 | 71.483 |
| 0.75 | 5.67449 | 361.23 | 33273.31 | 3.9217 | 2.55779 | 4.52210 | 0.59348 | 92.100 |
| 0.90 | 6.28155 | 2765.02 | 465270.61 | 16.4320 | 3.44170 | 5.66771 | 1.21569 | 168.265 |
| 0.95 | 6.64485 | 9347.21 | 2554279.72 | 34.2055 | 3.97068 | 6.40727 | 1.53410 | 273.263 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|-----------------------------|----------------|----------|--------------------|---------|
| 0.5 | 5.00000 | Chironomus (Tolerant) | 249.334 | 2.39678 | 0.78324 | 0.32679 |
| 0.1 | 3.71845 | Chironomus tentans | 0.680 | -0.16749 | . | . |
| 0.7 | 5.52440 | Chironomus zealandicus | 327.856 | 2.51568 | 1.09061 | 0.43353 |
| 0.3 | 4.47560 | Daphnia magna | 3.728 | 0.57147 | 0.33395 | 0.58438 |
| 0.9 | 6.28155 | Polypedilum (Intermediate) | 364.801 | 2.56206 | 0.66660 | 0.26018 |

Arsenic SSD for Arthropods - in water at T>15C over long (3-30 days) exposure



Species Sensitivity Distribution (SSD 2) data for arthropod species exposed to arsenic in water at T>15C over long (3-30 days) exposure

| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|---------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 6 | 0.84736 | 4.10338 | 0.86964 | 1.05813 | 5.84238 | 4 | 0.15720 |

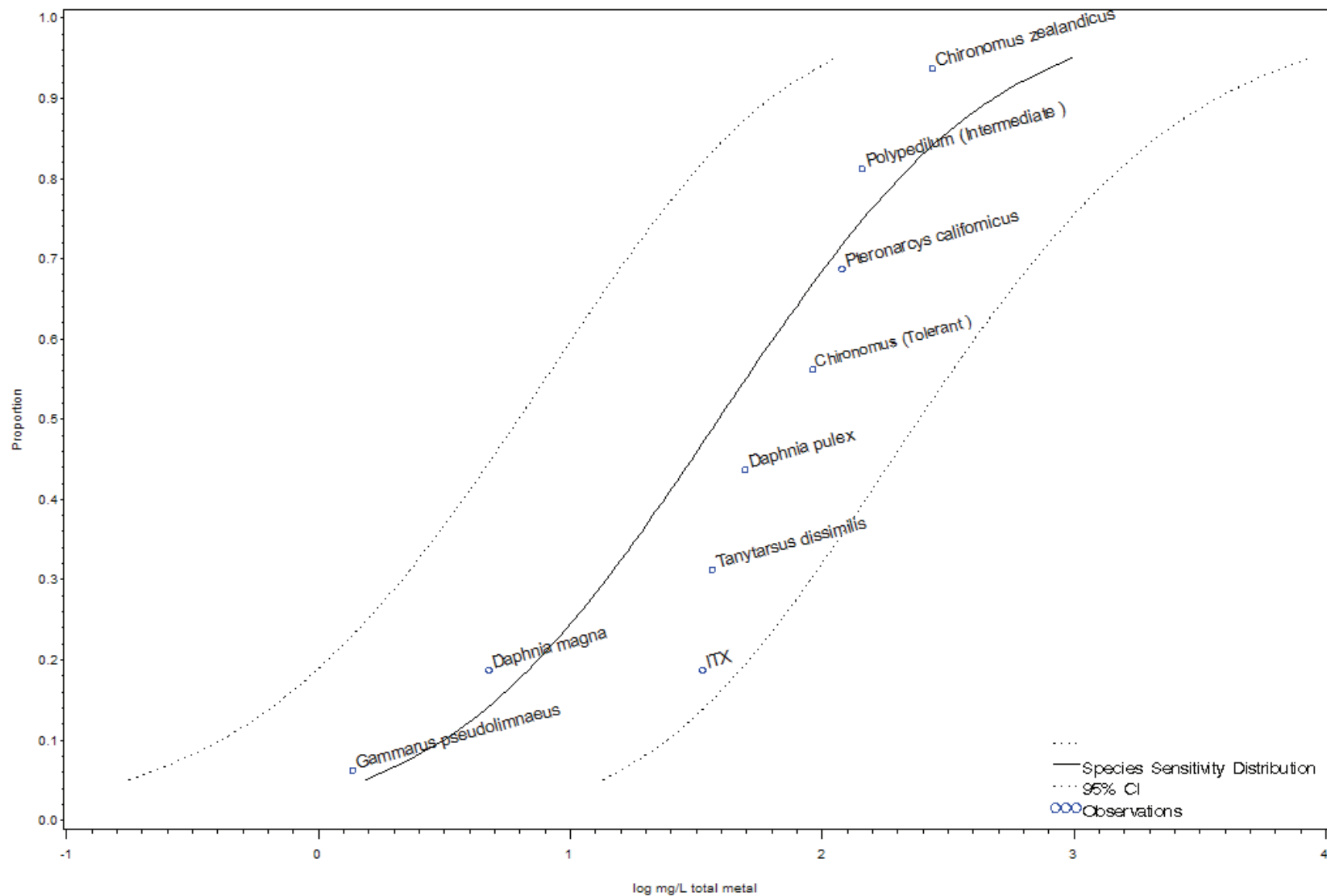
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|----------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.131 | 2.88 | 0.0059 | -0.88302 | 0.45959 | -2.22563 | 21.9642 |
| 0.10 | 3.71845 | 0.351 | 6.18 | 0.0200 | -0.45427 | 0.79089 | -1.69943 | 17.5289 |
| 0.20 | 4.15838 | 1.161 | 16.51 | 0.0817 | 0.06490 | 1.21767 | -1.08787 | 14.1454 |
| 0.25 | 4.32551 | 1.829 | 24.46 | 0.1367 | 0.26214 | 1.38854 | -0.86426 | 13.3035 |
| 0.30 | 4.47560 | 2.750 | 35.20 | 0.2148 | 0.43927 | 1.54656 | -0.66803 | 12.7243 |
| 0.50 | 5.00000 | 11.432 | 136.63 | 0.9565 | 1.05813 | 2.13556 | -0.01931 | 11.8682 |
| 0.75 | 5.67449 | 71.468 | 956.12 | 5.3421 | 1.85411 | 2.98051 | 0.72772 | 13.3035 |
| 0.90 | 6.28155 | 371.987 | 6541.68 | 21.1527 | 2.57053 | 3.81569 | 1.32537 | 17.5289 |
| 0.95 | 6.64485 | 998.325 | 21972.73 | 45.3586 | 2.99927 | 4.34188 | 1.65666 | 21.9642 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|-----------------------------|----------------|----------|--------------------|---------|
| 0.08333 | 3.61701 | Bosmina longirostris | 0.850 | -0.07058 | . | . |
| 0.58333 | 5.21043 | Chironomus (Tolerant) | 55.946 | 1.74777 | 0.73845 | 0.42251 |
| 0.91667 | 6.38299 | Chironomus zealandicus | 199.731 | 2.30045 | 0.81187 | 0.35292 |
| 0.41667 | 4.78957 | Daphnia magna | 2.647 | 0.42281 | 0.23236 | 0.54957 |
| 0.41667 | . | -->EC50 -REP | . | 0.33647 | . | . |
| 0.41667 | . | -->GRO | . | -0.08983 | 0.51966 | . |
| 0.41667 | . | -->MOR | . | -1.04157 | . | . |
| 0.41667 | . | -->REP | . | -0.08983 | 0.51966 | . |
| 0.25000 | 4.32551 | Gammarus pseudolimnaeus | 0.874 | -0.05824 | 0.00035 | 0.00603 |
| 0.75000 | 5.67449 | Polypedilum (Intermediate) | 101.523 | 2.00656 | 0.73402 | 0.36581 |

Arsenic SSD for Arthropods - in water at T>15C over moderate (1-3 days) exposure



Species Sensitivity Distribution (SSD 3) data for arthropod species exposed to arsenic in water at T>15C over moderate (1-3 days) exposure

| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|---------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 8 | 1.17350 | 3.13457 | 0.88601 | 1.58962 | 4.38040 | 6 | 0.12935 |

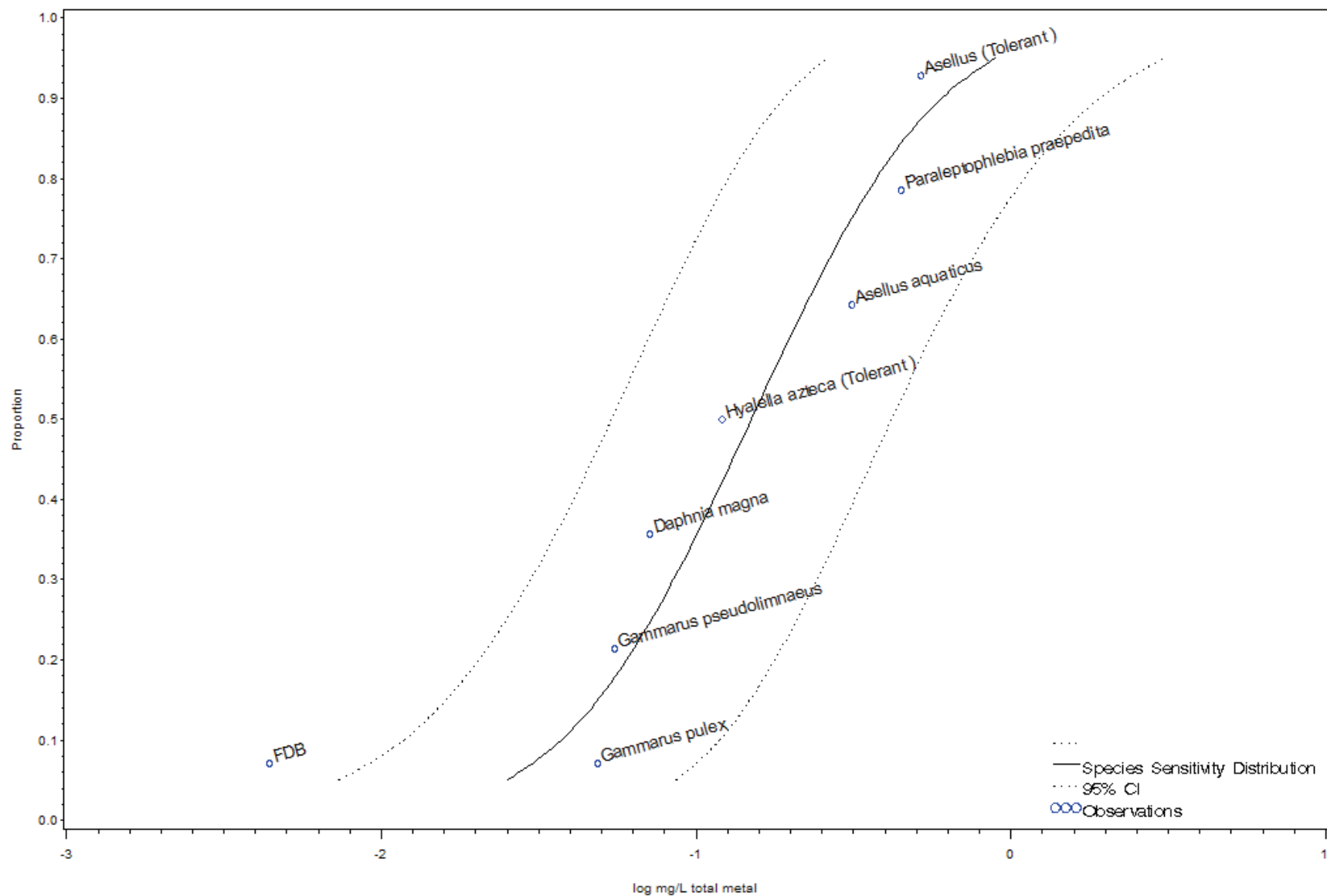
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log | | | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|------------------|-------------|-------------|--------------------|
| | | | | | Central Tendency | log UpperCI | log LowerCI | |
| 0.05 | 3.35515 | 1.542 | 8.61 | 0.276 | 0.18796 | 0.93501 | -0.55909 | 5.40625 |
| 0.10 | 3.71845 | 3.144 | 15.90 | 0.622 | 0.49755 | 1.20151 | -0.20642 | 4.86014 |
| 0.20 | 4.15838 | 7.455 | 34.38 | 1.617 | 0.87243 | 1.53625 | 0.20862 | 4.39435 |
| 0.25 | 4.32551 | 10.348 | 46.49 | 2.303 | 1.01485 | 1.66735 | 0.36236 | 4.27001 |
| 0.30 | 4.47560 | 13.892 | 61.25 | 3.151 | 1.14275 | 1.78709 | 0.49841 | 4.18218 |
| 0.50 | 5.00000 | 38.870 | 166.45 | 9.077 | 1.58962 | 2.22129 | 0.95795 | 4.04869 |
| 0.75 | 5.67449 | 146.011 | 655.97 | 32.500 | 2.16438 | 2.81688 | 1.51189 | 4.27001 |
| 0.90 | 6.28155 | 480.497 | 2430.28 | 95.000 | 2.68169 | 3.38566 | 1.97772 | 4.86014 |
| 0.95 | 6.64485 | 980.117 | 5474.24 | 175.482 | 2.99128 | 3.73832 | 2.24423 | 5.40625 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|-----------------------------|----------------|---------|--------------------|---------|
| 0.5625 | 5.15731 | Chironomus (Tolerant) | 92.075 | 1.96414 | 0.76599 | 0.38999 |
| 0.9375 | 6.53412 | Chironomus zealandicus | 274.916 | 2.43920 | 0.77694 | 0.31852 |
| 0.1875 | 4.11285 | Daphnia magna | 4.759 | 0.67750 | 0.47566 | 0.70209 |
| 0.4375 | 4.84269 | Daphnia pulex | 49.600 | 1.69548 | . | . |
| 0.0625 | 3.46588 | Gammarus pseudolimnaeus | 1.371 | 0.13708 | 0.18877 | 1.37709 |
| 0.8125 | 5.88715 | Polypedilum (Intermediate) | 144.447 | 2.15971 | 0.77644 | 0.35951 |
| 0.6875 | 5.48878 | Pteronarcys californicus | 120.000 | 2.07918 | . | . |
| 0.3125 | 4.51122 | Tanytarsus dissimilis | 36.700 | 1.56467 | . | . |

Cadmium SSD for Arthropods - in moderately hard water at T<=15C over long (3-30 days) exposure



Species Sensitivity Distribution (SSD 11) data for arthropod species exposed to cadmium in moderately hard water at T<=15C over long (3-30 days) exposure

Model Parameters

| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
|-------------|---------|-----------|-----------|------------|---------|----|---------|
| 7 | 2.12225 | 6.74942 | 0.89866 | -0.82432 | 1.16030 | 5 | 0.11787 |

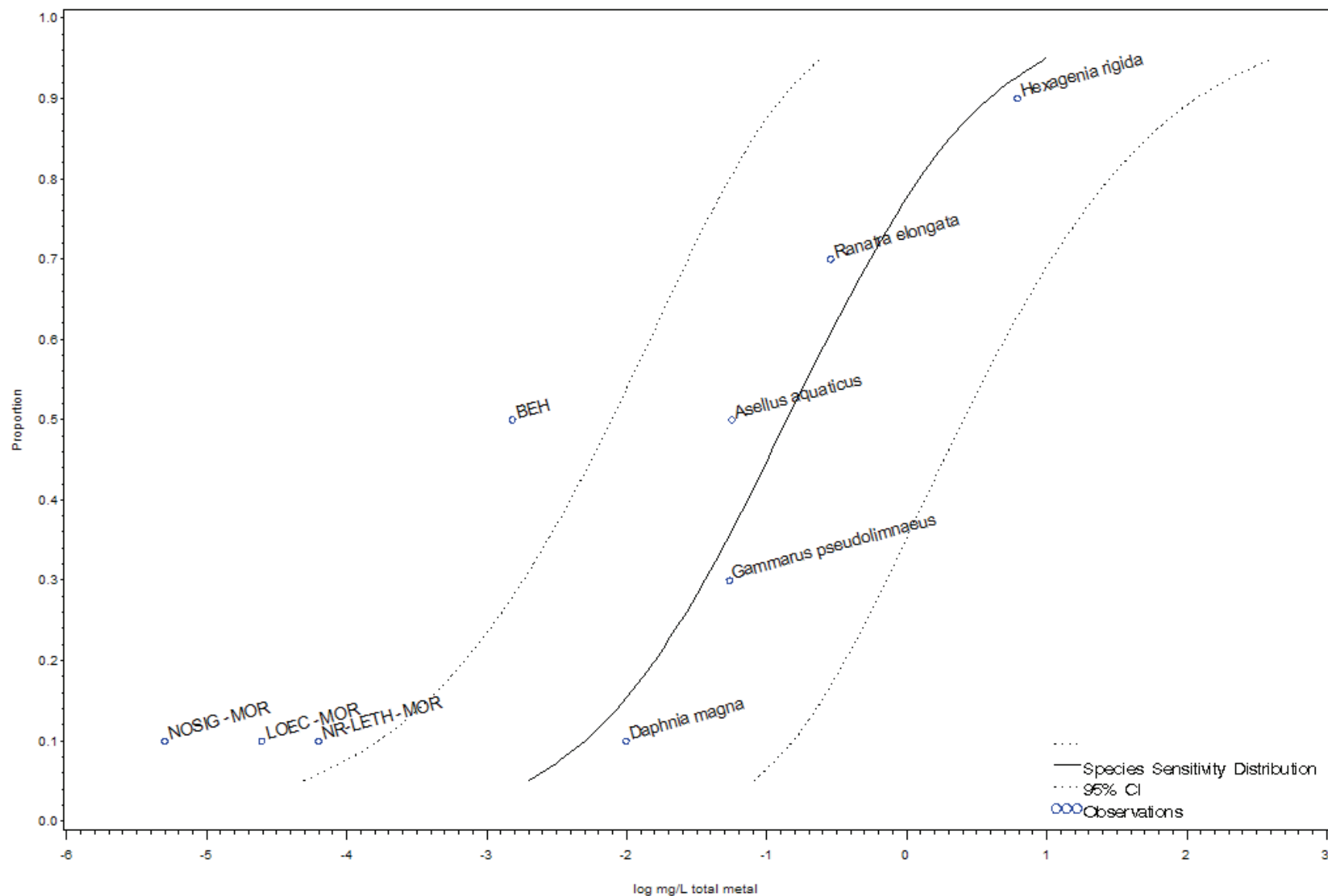
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.02516 | 0.06617 | 0.00956 | -1.59938 | -1.17931 | -2.01944 | 2.25052 |
| 0.10 | 3.71845 | 0.03731 | 0.09232 | 0.01508 | -1.42819 | -1.03470 | -1.82168 | 2.07041 |
| 0.20 | 4.15838 | 0.06013 | 0.14050 | 0.02574 | -1.22089 | -0.85232 | -1.58946 | 1.90854 |
| 0.25 | 4.32551 | 0.07209 | 0.16572 | 0.03136 | -1.14214 | -0.78063 | -1.50365 | 1.86386 |
| 0.30 | 4.47560 | 0.08484 | 0.19275 | 0.03734 | -1.07142 | -0.71500 | -1.42784 | 1.83191 |
| 0.50 | 5.00000 | 0.14986 | 0.33432 | 0.06717 | -0.82432 | -0.47584 | -1.17281 | 1.78267 |
| 0.75 | 5.67449 | 0.31153 | 0.71616 | 0.13551 | -0.50650 | -0.14499 | -0.86802 | 1.86386 |
| 0.90 | 6.28155 | 0.60192 | 1.48948 | 0.24325 | -0.22046 | 0.17303 | -0.61395 | 2.07041 |
| 0.95 | 6.64485 | 0.89275 | 2.34852 | 0.33936 | -0.04927 | 0.37079 | -0.46934 | 2.25052 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|-----------------------------|----------------|----------|--------------------|---------|
| 0.92857 | 6.46523 | Asellus (Tolerant) | 0.51925 | -0.28462 | 0.02842 | 0.09984 |
| 0.64286 | 5.36611 | Asellus aquaticus | 0.31348 | -0.50379 | 0.44020 | 0.87379 |
| 0.35714 | 4.63389 | Daphnia magna | 0.07141 | -1.14621 | 0.20678 | 0.18040 |
| 0.21429 | 4.20836 | Gammarus pseudolimnaeus | 0.05512 | -1.25871 | 0.07226 | 0.05741 |
| 0.07143 | 3.53477 | Gammarus pulex | 0.04869 | -1.31252 | 0.80181 | 0.61089 |
| 0.07143 | . | -->FDB | . | -2.35527 | 1.62817 | . |
| 0.50000 | 5.00000 | Hyalella azteca (Tolerant) | 0.12116 | -0.91666 | 0.36944 | 0.40303 |
| 0.78571 | 5.79164 | Paraleptophlebia praepedita | 0.44900 | -0.34775 | . | . |

Cadmium SSD for Arthropods - in moderately hard water at T>15C over long (3-30 days) exposure



Species Sensitivity Distribution (SSD 12) data for arthropod species exposed to cadmium in moderately hard water at T>15C over long (3-30 days) exposure

Model Parameters

| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
|-------------|---------|-----------|-----------|------------|---------|----|---------|
| 5 | 0.88991 | 5.75872 | 0.91943 | -0.85258 | 4.45206 | 3 | 0.10299 |

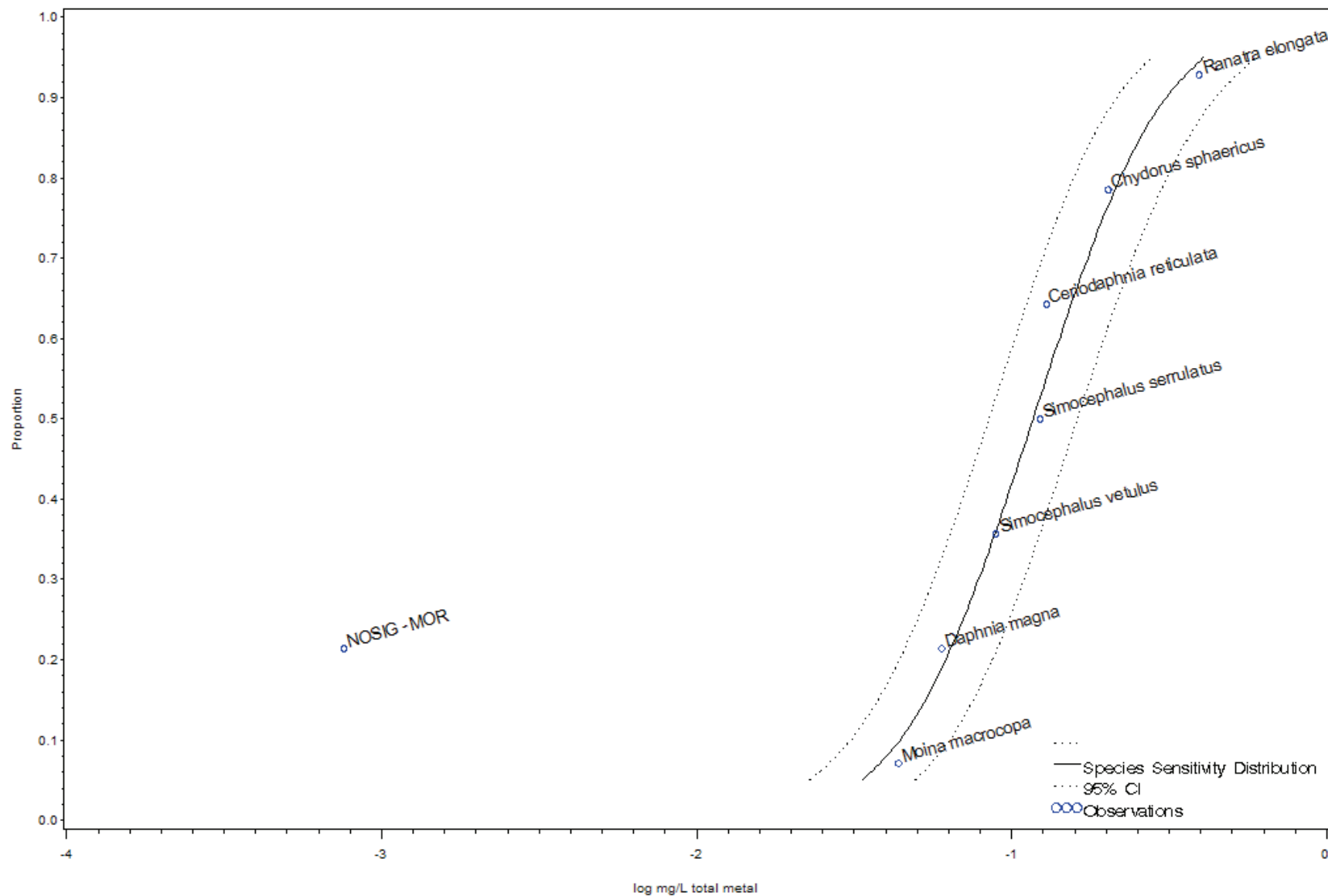
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.00199 | 0.031 | 0.00013 | -2.70092 | -1.51056 | -3.89127 | 15.4363 |
| 0.10 | 3.71845 | 0.00510 | 0.063 | 0.00041 | -2.29267 | -1.19733 | -3.38801 | 12.3746 |
| 0.20 | 4.15838 | 0.01591 | 0.161 | 0.00157 | -1.79832 | -0.79385 | -2.80279 | 10.0045 |
| 0.25 | 4.32551 | 0.02452 | 0.233 | 0.00258 | -1.61051 | -0.63214 | -2.58888 | 9.4090 |
| 0.30 | 4.47560 | 0.03615 | 0.329 | 0.00397 | -1.44186 | -0.48246 | -2.40125 | 8.9977 |
| 0.50 | 5.00000 | 0.14042 | 1.194 | 0.01651 | -0.85258 | 0.07708 | -1.78224 | 8.3872 |
| 0.75 | 5.67449 | 0.80417 | 7.651 | 0.08452 | -0.09465 | 0.88371 | -1.07302 | 9.4090 |
| 0.90 | 6.28155 | 3.86816 | 48.177 | 0.31057 | 0.58750 | 1.68284 | -0.50783 | 12.3746 |
| 0.95 | 6.64485 | 9.90261 | 153.499 | 0.63884 | 0.99575 | 2.18610 | -0.19461 | 15.4363 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|-------------------------|----------------|----------|--------------------|---------|
| 0.5 | 5.00000 | Asellus aquaticus | 0.05658 | -1.24734 | 0.19990 | 0.16026 |
| 0.5 | . | -->BEH | . | -2.81341 | . | . |
| 0.1 | 3.71845 | Daphnia magna | 0.00993 | -2.00296 | 0.07559 | 0.03774 |
| 0.1 | . | -->LOEC -MOR | . | -4.60517 | 0.00000 | . |
| 0.1 | . | -->NOSIG -MOR | . | -5.29832 | 0.00000 | . |
| 0.1 | . | -->NR-LETH -MOR | . | -4.19971 | 0.00000 | . |
| 0.3 | 4.47560 | Gammarus pseudolimnaeus | 0.05440 | -1.26440 | . | . |
| 0.9 | 6.28155 | Hexagenia rigida | 6.20000 | 0.79239 | . | . |
| 0.7 | 5.52440 | Ranatra elongata | 0.28800 | -0.54061 | . | . |

Cadmium SSD for Arthropods - in moderately hard water at T>15C over moderate (1-3 days) exposure



Species Sensitivity Distribution (SSD 13) data for arthropod species exposed to cadmium in moderately hard water at T>15C over moderate (1-3 days) exposure

Model Parameters

| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
|-------------|---------|-----------|-----------|------------|---------|----|----------|
| 7 | 3.03624 | 7.83014 | 0.97931 | -0.93212 | 0.61775 | 5 | 0.024065 |

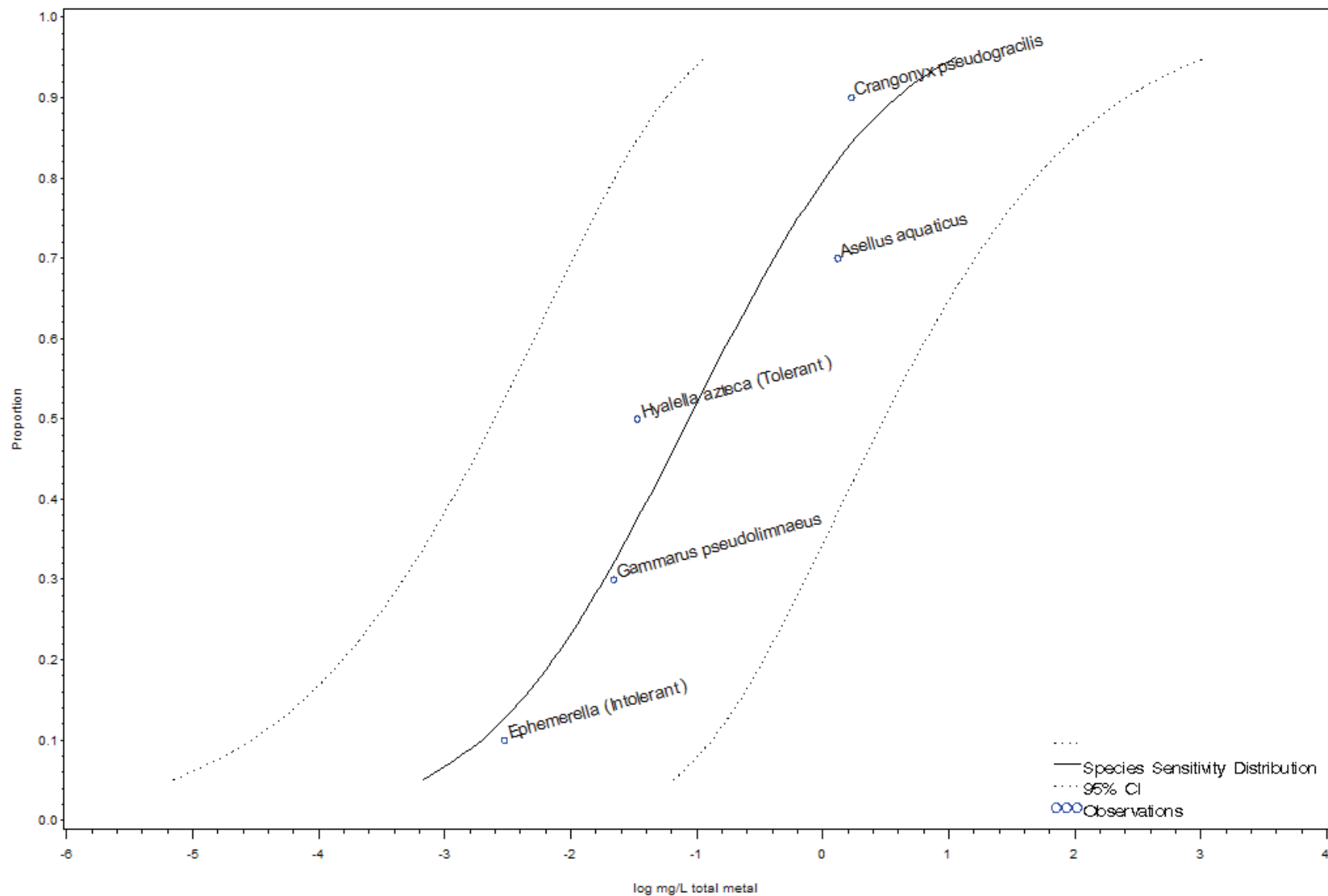
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.03358 | 0.04540 | 0.02484 | -1.47386 | -1.34290 | -1.60481 | 0.61225 |
| 0.10 | 3.71845 | 0.04424 | 0.05874 | 0.03331 | -1.35420 | -1.23104 | -1.47737 | 0.57484 |
| 0.20 | 4.15838 | 0.06176 | 0.08065 | 0.04729 | -1.20931 | -1.09341 | -1.32521 | 0.54008 |
| 0.25 | 4.32551 | 0.07010 | 0.09111 | 0.05394 | -1.15427 | -1.04042 | -1.26811 | 0.53029 |
| 0.30 | 4.47560 | 0.07855 | 0.10175 | 0.06065 | -1.10483 | -0.99247 | -1.21720 | 0.52324 |
| 0.50 | 5.00000 | 0.11692 | 0.15064 | 0.09074 | -0.93212 | -0.82206 | -1.04218 | 0.51229 |
| 0.75 | 5.67449 | 0.19500 | 0.25344 | 0.15003 | -0.70997 | -0.59613 | -0.82382 | 0.53029 |
| 0.90 | 6.28155 | 0.30900 | 0.41033 | 0.23270 | -0.51003 | -0.38687 | -0.63320 | 0.57484 |
| 0.95 | 6.64485 | 0.40702 | 0.55027 | 0.30107 | -0.39038 | -0.25943 | -0.52133 | 0.61225 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|-------------------------|----------------|----------|--------------------|---------|
| 0.64286 | 5.36611 | Ceriodaphnia reticulata | 0.12900 | -0.88941 | . | . |
| 0.78571 | 5.79164 | Chydorus sphaericus | 0.20316 | -0.69217 | 0.19042 | 0.27511 |
| 0.21429 | 4.20836 | Daphnia magna | 0.06004 | -1.22152 | 0.42332 | 0.34655 |
| 0.21429 | . | -->NOSIG -MOR | . | -3.11996 | 0.17569 | . |
| 0.07143 | 3.53477 | Moina macrocopa | 0.04382 | -1.35834 | 0.22965 | 0.16907 |
| 0.92857 | 6.46523 | Ranatra elongata | 0.39432 | -0.40415 | 0.06452 | 0.15965 |
| 0.50000 | 5.00000 | Simocephalus serrulatus | 0.12300 | -0.91009 | . | . |
| 0.35714 | 4.63389 | Simocephalus vetulus | 0.08930 | -1.04915 | . | . |

Cadmium SSD for Arthropods - in soft water at T<=15C over long (3-30 days) exposure



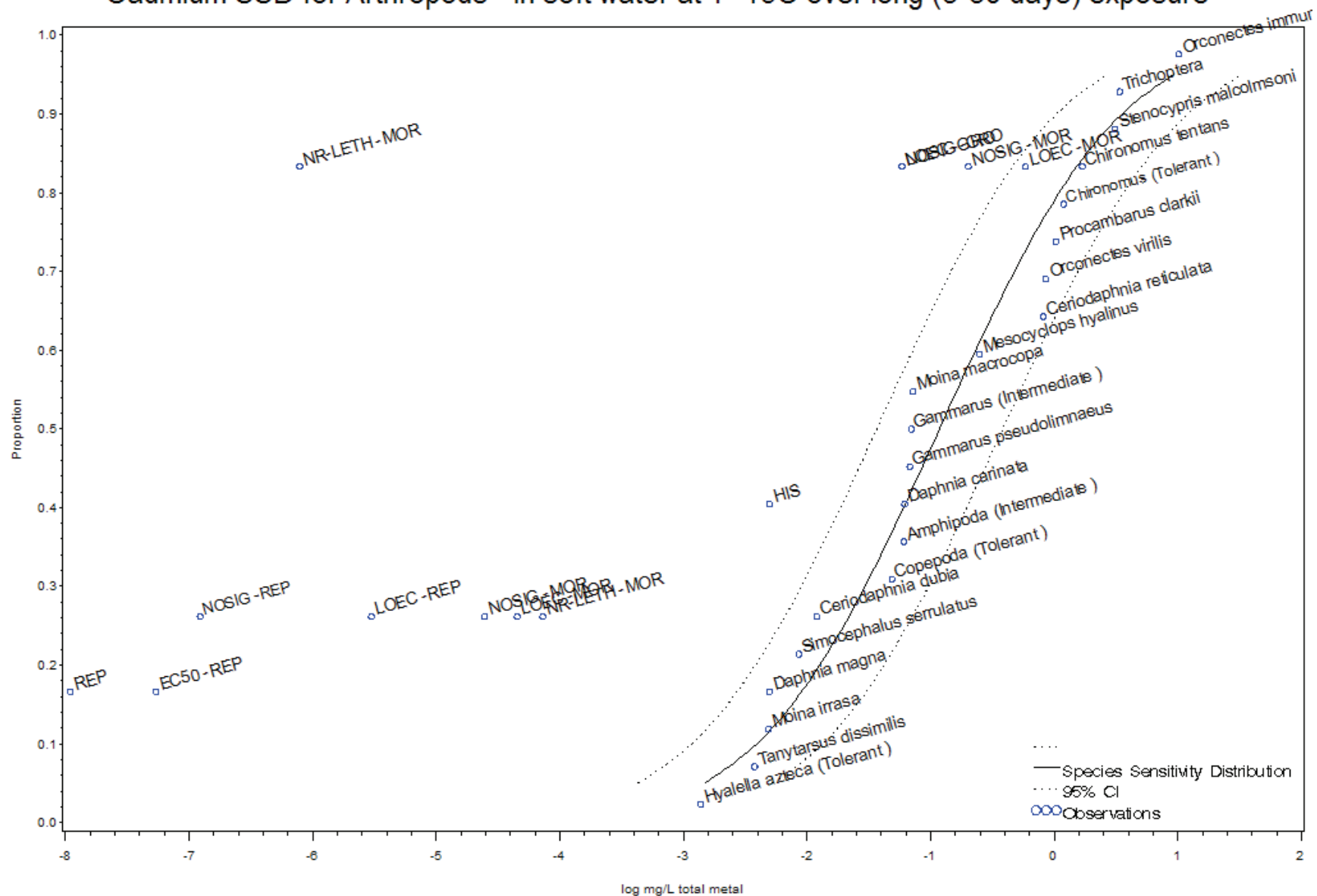
Species Sensitivity Distribution (SSD 14) data for arthropod species exposed to cadmium in soft water at T<=15C over long (3-30 days) exposure

| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|---------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 5 | 0.77936 | 5.82598 | 0.90663 | -1.05982 | 5.72394 | 3 | 0.11934 |

| Predicted Values | | | | | | | | |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
| 0.05 | 3.35515 | 0.0007 | 0.020 | 0.00002 | -3.17034 | -1.70315 | -4.63753 | 29.2877 |
| 0.10 | 3.71845 | 0.0020 | 0.044 | 0.00009 | -2.70419 | -1.35516 | -4.05322 | 22.2925 |
| 0.20 | 4.15838 | 0.0072 | 0.125 | 0.00042 | -2.13971 | -0.90378 | -3.37564 | 17.1579 |
| 0.25 | 4.32551 | 0.0119 | 0.190 | 0.00074 | -1.92526 | -0.72184 | -3.12868 | 15.9116 |
| 0.30 | 4.47560 | 0.0185 | 0.280 | 0.00122 | -1.73268 | -0.55289 | -2.91247 | 15.0621 |
| 0.50 | 5.00000 | 0.0871 | 1.210 | 0.00627 | -1.05982 | 0.08291 | -2.20254 | 13.8188 |
| 0.75 | 5.67449 | 0.6392 | 10.210 | 0.04001 | -0.19437 | 1.00905 | -1.39779 | 15.9116 |
| 0.90 | 6.28155 | 3.8420 | 85.819 | 0.17200 | 0.58455 | 1.93358 | -0.76448 | 22.2925 |
| 0.95 | 6.64485 | 11.2385 | 329.533 | 0.38328 | 1.05071 | 2.51790 | -0.41648 | 29.2877 |

| Data Summary | | | | | | | |
|--------------------|---------|-----------------------------|----------------|----------|--------------------|---------|--|
| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV | |
| 0.7 | 5.52440 | Asellus aquaticus | 1.32000 | 0.12057 | . | . | |
| 0.9 | 6.28155 | Crangonyx pseudogracilis | 1.70000 | 0.23045 | . | . | |
| 0.1 | 3.71845 | Ephemerella (Intolerant) | 0.00300 | -2.52288 | . | . | |
| 0.1 | . | -->LOEC -ITX | . | -5.80914 | . | . | |
| 0.3 | 4.47560 | Gammarus pseudolimnaeus | 0.02200 | -1.65758 | . | . | |
| 0.5 | 5.00000 | Hyalella azteca (Tolerant) | 0.03391 | -1.46965 | 0.23847 | 0.16226 | |

Cadmium SSD for Arthropods - in soft water at T>15C over long (3-30 days) exposure



Species Sensitivity Distribution (SSD 15) data for arthropod species exposed to cadmium in soft water at T>15C over long (3-30 days) exposure

| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|----------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 21 | 0.86774 | 5.80424 | 0.95895 | -0.92681 | 25.1773 | 19 | 0.042709 |

Predicted Values

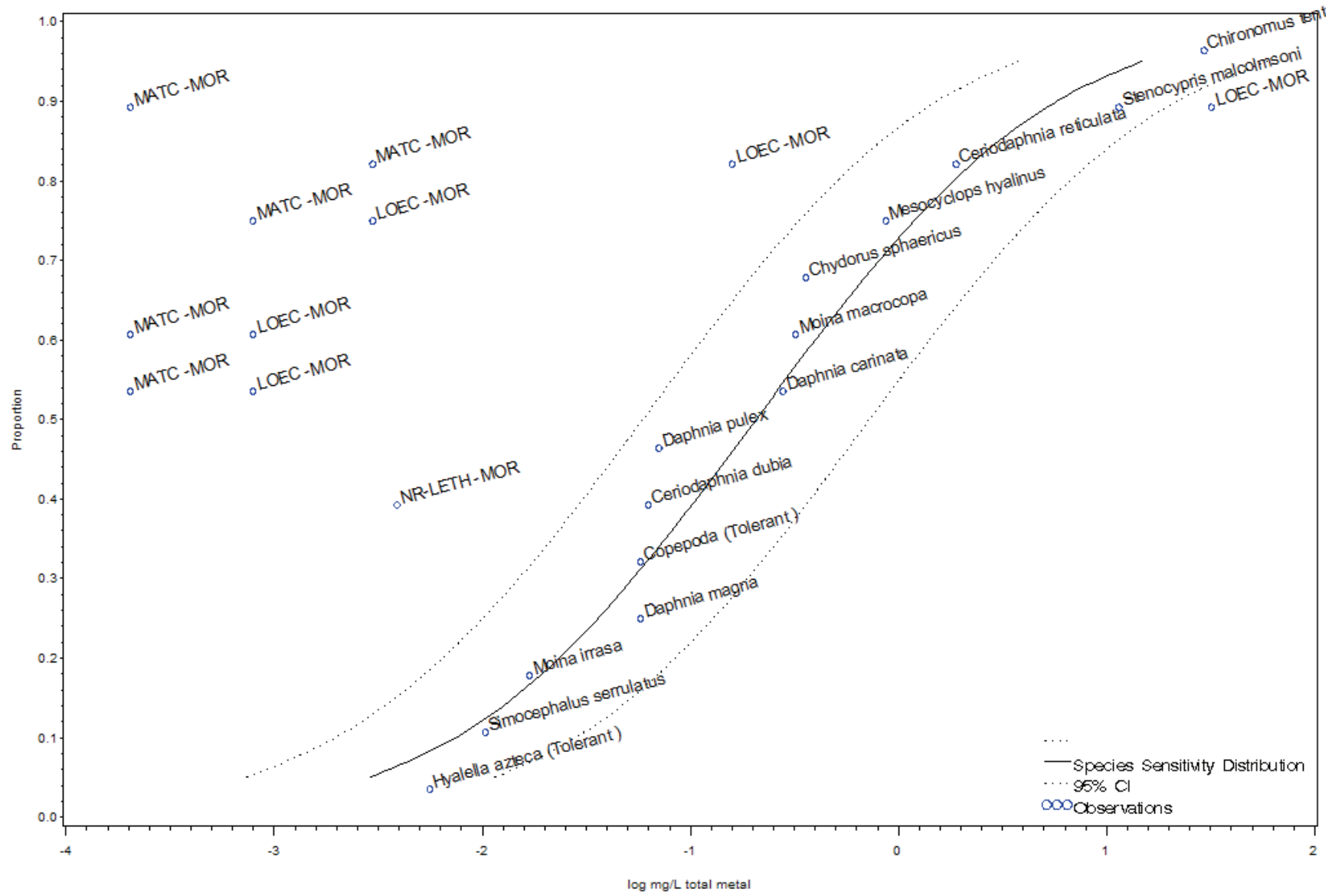
| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log | | | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|------------------|-------------|-------------|--------------------|
| | | | | | Central Tendency | log UpperCI | log LowerCI | |
| 0.05 | 3.35515 | 0.00151 | 0.0042 | 0.00053 | -2.82236 | -2.37307 | -3.27166 | 2.45840 |
| 0.10 | 3.71845 | 0.00395 | 0.0108 | 0.00144 | -2.40369 | -1.96511 | -2.84227 | 2.38097 |
| 0.20 | 4.15838 | 0.01269 | 0.0341 | 0.00472 | -1.89671 | -1.46776 | -2.32566 | 2.31259 |
| 0.25 | 4.32551 | 0.01976 | 0.0527 | 0.00741 | -1.70410 | -1.27781 | -2.13040 | 2.29398 |
| 0.30 | 4.47560 | 0.02943 | 0.0782 | 0.01108 | -1.53114 | -1.10673 | -1.95555 | 2.28074 |
| 0.50 | 5.00000 | 0.11835 | 0.3124 | 0.04484 | -0.92681 | -0.50532 | -1.34831 | 2.26048 |
| 0.75 | 5.67449 | 0.70872 | 1.8914 | 0.26557 | -0.14952 | 0.27677 | -0.57582 | 2.29398 |
| 0.90 | 6.28155 | 3.54864 | 9.7419 | 1.29265 | 0.55006 | 0.98864 | 0.11148 | 2.38097 |
| 0.95 | 6.64485 | 9.30541 | 26.1835 | 3.30708 | 0.96874 | 1.41803 | 0.51944 | 2.45840 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric | | Standard Deviation | CV |
|--------------------|---------|---------------------------|-----------|----------|--------------------|--------|
| | | | Mean | LogMean | | |
| 0.35714 | 4.63389 | Amphipoda (Intermediate) | 0.0610 | -1.21467 | . | . |
| 0.26190 | 4.36252 | Ceriodaphnia dubia | 0.0120 | -1.91951 | 0.10137 | 0.0528 |
| 0.26190 | . | -->LOEC -MOR | . | -4.34281 | 0.00000 | . |
| 0.26190 | . | -->LOEC -REP | . | -5.52146 | 0.00000 | . |
| 0.26190 | . | -->NOSIG -MOR | . | -4.60517 | 0.00000 | . |
| 0.26190 | . | -->NOSIG -REP | . | -6.90776 | 0.00000 | . |
| 0.26190 | . | -->NR-LETH -MOR | . | -4.13517 | . | . |
| 0.64286 | 5.36611 | Ceriodaphnia reticulata | 0.8200 | -0.08619 | . | . |
| 0.78571 | 5.79164 | Chironomus (Tolerant) | 1.2000 | 0.07918 | . | . |
| 0.83333 | 5.96742 | Chironomus tentans | 1.6982 | 0.22998 | 0.48176 | 2.0947 |
| 0.83333 | . | -->LOEC -GRO | . | -1.22963 | 0.92921 | . |
| 0.83333 | . | -->LOEC -MOR | . | -0.23105 | 0.40019 | . |
| 0.83333 | . | -->NOSIG -GRO | . | -1.22963 | 0.92921 | . |
| 0.83333 | . | -->NOSIG -MOR | . | -0.69315 | 0.00000 | . |

| | | | | | | |
|---------|---------|-----------------------------|---------|----------|---------|---------|
| 0.83333 | . | -->NR-LETH -MOR | . | -6.10304 | 0.15779 | . |
| 0.30952 | 4.50280 | Copepoda (Tolerant) | 0.0490 | -1.31017 | 0.02508 | 0.0191 |
| 0.30952 | . | -->NR-LETH -MOR | . | -2.88240 | . | . |
| 0.30952 | . | -->NoTrend -MOR | . | -4.60517 | . | . |
| 0.40476 | 4.75896 | Daphnia carinata | 0.0620 | -1.20761 | . | . |
| 0.40476 | . | -->HIS | . | -2.30259 | . | . |
| 0.16667 | 4.03258 | Daphnia magna | 0.0050 | -2.30103 | . | . |
| 0.16667 | . | -->EC50 -REP | . | -7.26443 | . | . |
| 0.16667 | . | -->REP | . | -7.95758 | . | . |
| 0.50000 | 5.00000 | Gammarus (Intermediate) | 0.0700 | -1.15490 | . | . |
| 0.45238 | 4.88035 | Gammarus pseudolimnaeus | 0.0683 | -1.16558 | . | . |
| 0.02381 | 3.01925 | Hyalella azteca (Tolerant) | 0.0014 | -2.85757 | 0.26658 | 0.0933 |
| 0.02381 | . | -->LOEC -GRO | . | -6.21461 | . | . |
| 0.02381 | . | -->LOEC -MOR | . | -6.90776 | 1.20057 | . |
| 0.02381 | . | -->NOSIG -GRO | . | -6.21461 | . | . |
| 0.02381 | . | -->NOSIG -MOR | . | -7.67528 | 1.32940 | . |
| 0.02381 | . | -->NR-LETH -MOR | . | -5.38631 | 0.23410 | . |
| 0.59524 | 5.24104 | Mesocyclops hyalinus | 0.2500 | -0.60206 | . | . |
| 0.11905 | 3.82024 | Moina irrasa | 0.0049 | -2.30884 | 0.40978 | 0.1775 |
| 0.54762 | 5.11965 | Moina macrocopa | 0.0725 | -1.13966 | . | . |
| 0.97619 | 6.98075 | Orconectes immunis | 10.2000 | 1.00860 | . | . |
| 0.69048 | 5.49720 | Orconectes virilis | 0.8566 | -0.06723 | 0.73760 | 10.9714 |
| 0.73810 | 5.63748 | Procambarus clarkii | 1.0400 | 0.01703 | . | . |
| 0.21429 | 4.20836 | Simocephalus serrulatus | 0.0086 | -2.06550 | . | . |
| 0.88095 | 6.17976 | Stenocypris malcolmsoni | 3.1000 | 0.49136 | . | . |
| 0.07143 | 3.53477 | Tanytarsus dissimilis | 0.0038 | -2.42022 | . | . |
| 0.92857 | 6.46523 | Trichoptera | 3.4000 | 0.53148 | . | . |

Cadmium SSD for Arthropods - in soft water at T>15C over moderate (1-3 days) exposure



Species Sensitivity Distribution (SSD 16) data for arthropod species exposed to cadmium in soft water at T>15C over moderate (1-3 days) exposure

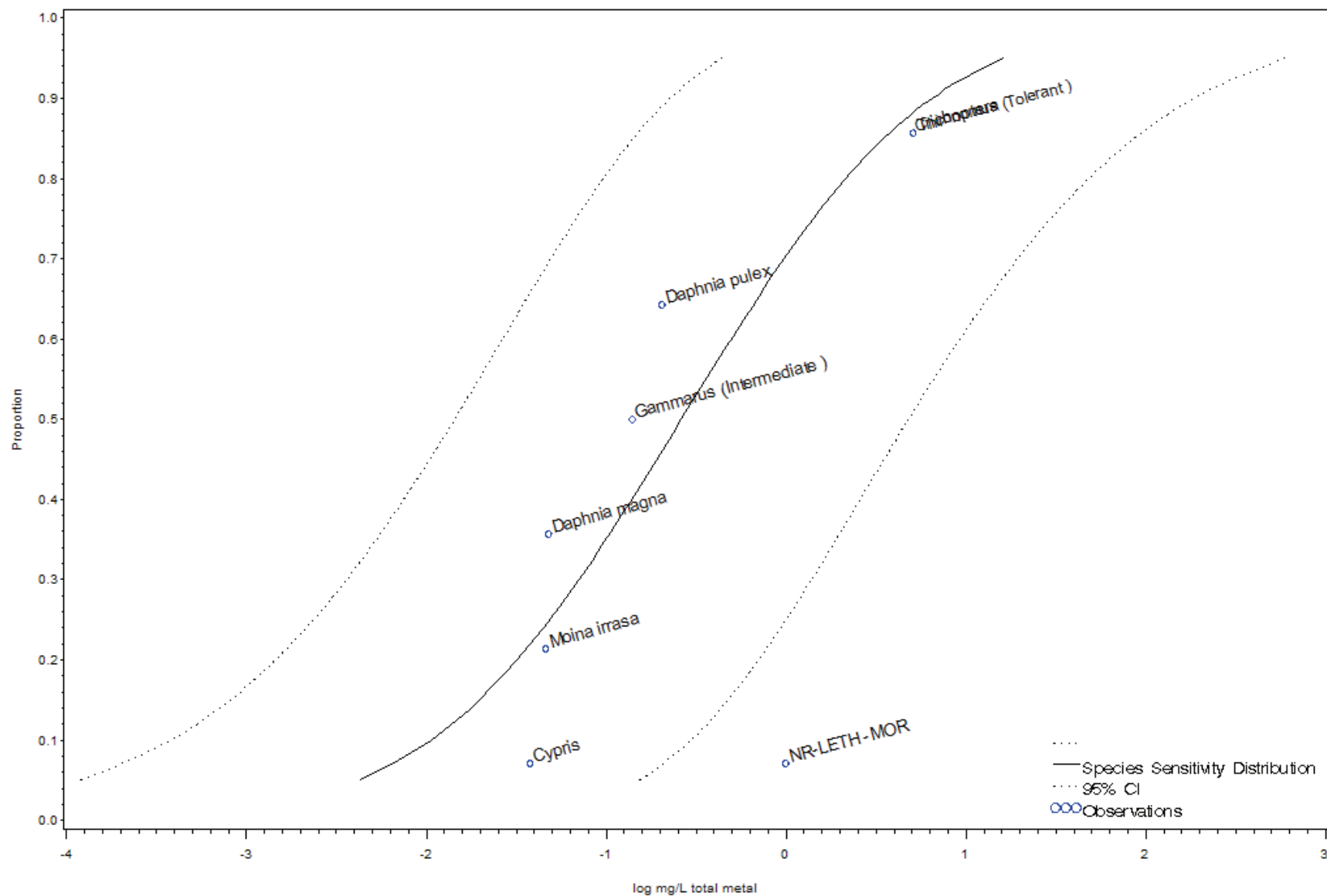
| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|----------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 14 | 0.88717 | 5.60668 | 0.95696 | -0.68384 | 15.5434 | 12 | 0.045848 |

Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log | | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|------------------|-------------|--------------------|
| | | | | | Central Tendency | log UpperCI | |
| 0.05 | 3.35515 | 0.0029 | 0.0089 | 0.00094 | -2.53789 | -2.04884 | 2.75930 |
| 0.10 | 3.71845 | 0.0074 | 0.0221 | 0.00251 | -2.12839 | -1.65605 | 2.63006 |
| 0.20 | 4.15838 | 0.0233 | 0.0668 | 0.00814 | -1.63250 | -1.17537 | 2.51601 |
| 0.25 | 4.32551 | 0.0360 | 0.1020 | 0.01268 | -1.44412 | -0.99120 | 2.48496 |
| 0.30 | 4.47560 | 0.0531 | 0.1496 | 0.01884 | -1.27494 | -0.82503 | 2.46288 |
| 0.50 | 5.00000 | 0.2071 | 0.5773 | 0.07428 | -0.68384 | -0.23858 | 2.42907 |
| 0.75 | 5.67449 | 1.1924 | 3.3834 | 0.42025 | 0.07643 | 0.52935 | 2.48496 |
| 0.90 | 6.28155 | 5.7637 | 17.1014 | 1.94254 | 0.76070 | 1.23303 | 2.63006 |
| 0.95 | 6.64485 | 14.7982 | 45.6316 | 4.79900 | 1.17021 | 1.65927 | 2.75930 |

| Data Summary | | | | | | | |
|-----------------------|---------|-----------------------------|-------------------|----------|-----------------------|---------|--|
| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV | |
| 0.39286 | 4.72812 | Ceriodaphnia dubia | 0.0631 | -1.19997 | . | . | |
| 0.39286 | . | -->NR-LETH -MOR | . | -2.40795 | . | . | |
| 0.82143 | 5.92082 | Ceriodaphnia reticulata | 1.9000 | 0.27875 | . | . | |
| 0.82143 | . | -->LOEC -MOR | . | -0.79851 | . | . | |
| 0.82143 | . | -->MATC -MOR | . | -2.52573 | . | . | |
| 0.96429 | 6.80274 | Chironomus tentans | 29.5600 | 1.47070 | . | . | |
| 0.67857 | 5.46371 | Chydorus sphaericus | 0.3609 | -0.44264 | 0.16416 | 0.37088 | |
| 0.32143 | 4.53629 | Copepoda (Tolerant) | 0.0580 | -1.23657 | . | . | |
| 0.53571 | 5.08964 | Daphnia carinata | 0.2800 | -0.55284 | . | . | |
| 0.53571 | . | -->LOEC -MOR | . | -3.10109 | . | . | |
| 0.53571 | . | -->MATC -MOR | . | -3.68888 | . | . | |
| 0.25000 | 4.32551 | Daphnia magna | 0.0576 | -1.23922 | 0.33147 | 0.26748 | |
| 0.46429 | 4.91036 | Daphnia pulex | 0.0710 | -1.14874 | . | . | |
| 0.03571 | 3.19726 | Hyalella azteca (Tolerant) | 0.0056 | -2.25181 | . | . | |
| 0.75000 | 5.67449 | Mesocyclops hyalinus | 0.8700 | -0.06048 | . | . | |
| 0.75000 | . | -->LOEC -MOR | . | -2.52573 | . | . | |
| 0.75000 | . | -->MATC -MOR | . | -3.10109 | . | . | |
| 0.17857 | 4.07918 | Moina irrasa | 0.0169 | -1.77182 | 0.33824 | 0.19090 | |
| 0.60714 | 5.27188 | Moina macrocopa | 0.3200 | -0.49485 | . | . | |
| 0.60714 | . | -->LOEC -MOR | . | -3.10109 | . | . | |
| 0.60714 | . | -->MATC -MOR | . | -3.68888 | . | . | |
| 0.10714 | 3.75813 | Simocephalus serrulatus | 0.0104 | -1.98500 | 0.33006 | 0.16628 | |
| 0.89286 | 6.24187 | Stenocypris malcolmsoni | 11.5000 | 1.06070 | . | . | |
| 0.89286 | . | -->LOEC -MOR | . | 1.50408 | . | . | |
| 0.89286 | . | -->MATC -MOR | . | -3.68888 | . | . | |

Cadmium SSD for Arthropods - in soft water at T>15C over short (<=1 day) exposure



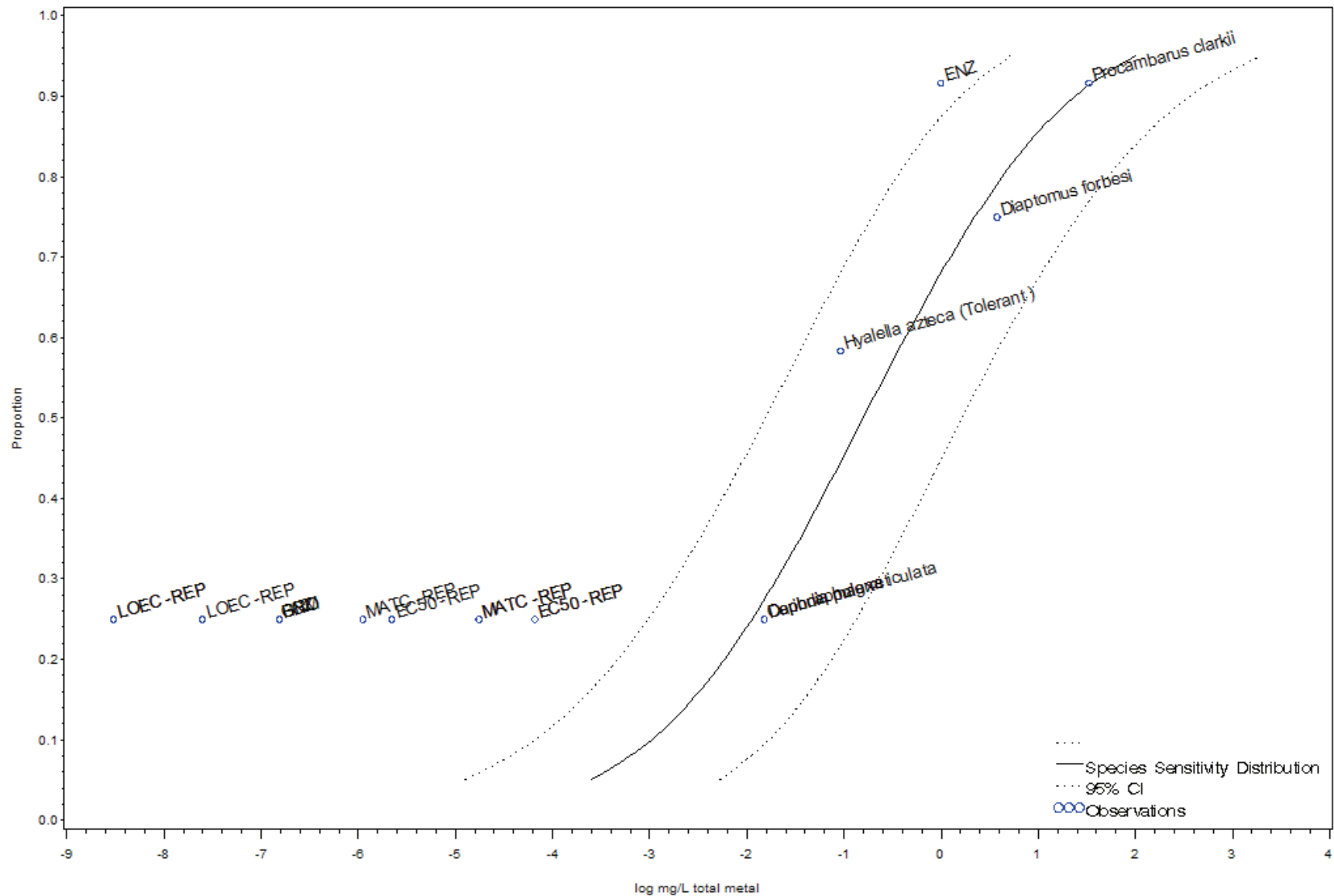
Species Sensitivity Distribution (SSD 17) data for arthropod species exposed to cadmium in soft water at T>15C over short (<=1 day) exposure

| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|---------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 7 | 0.92033 | 5.53544 | 0.83241 | -0.60069 | 5.22724 | 5 | 0.17829 |

| Predicted Values | | | | | | | | |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
| 0.05 | 3.35515 | 0.0043 | 0.071 | 0.00026 | -2.36903 | -1.14918 | -3.58889 | 16.5301 |
| 0.10 | 3.71845 | 0.0106 | 0.144 | 0.00078 | -1.97428 | -0.84059 | -3.10797 | 13.5313 |
| 0.20 | 4.15838 | 0.0319 | 0.360 | 0.00283 | -1.49627 | -0.44370 | -2.54884 | 11.1982 |
| 0.25 | 4.32551 | 0.0485 | 0.519 | 0.00453 | -1.31467 | -0.28505 | -2.34429 | 10.6124 |
| 0.30 | 4.47560 | 0.0705 | 0.727 | 0.00684 | -1.15159 | -0.13848 | -2.16470 | 10.2094 |
| 0.50 | 5.00000 | 0.2619 | 2.550 | 0.02691 | -0.58179 | 0.40655 | -1.57014 | 9.6325 |
| 0.75 | 5.67449 | 1.4161 | 15.314 | 0.13094 | 0.15108 | 1.18509 | -0.88292 | 10.7221 |
| 0.90 | 6.28155 | 6.4669 | 89.527 | 0.46713 | 0.81070 | 1.95195 | -0.33056 | 13.7716 |
| 0.95 | 6.64485 | 16.0489 | 271.845 | 0.94748 | 1.20545 | 2.43432 | -0.02343 | 16.8795 |

| Data Summary | | | | | | |
|--------------------|---------|--------------------------|----------------|----------|--------------------|---------|
| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
| 0.85714 | 6.06757 | Chironomus (Tolerant) | 5.10000 | 0.70757 | . | . |
| 0.07143 | 3.53477 | Cypris | 0.03779 | -1.42264 | 0.06489 | 0.04561 |
| 0.07143 | . | -->NR-LETH -MOR | . | 0.00000 | . | . |
| 0.35714 | 4.63389 | Daphnia magna | 0.04800 | -1.31876 | . | . |
| 0.64286 | 5.36611 | Daphnia pulex | 0.20494 | -0.68838 | 0.23405 | 0.34000 |
| 0.50000 | 5.00000 | Gammarus (Intermediate) | 0.14000 | -0.85387 | . | . |
| 0.21429 | 4.20836 | Moina irrasa | 0.04610 | -1.33632 | 0.24426 | 0.18278 |
| 0.85714 | 6.06757 | Trichoptera | 5.10000 | 0.70757 | . | . |

Cadmium SSD for Arthropods - in very hard water at T>15C over long (3-30 days) exposure



Species Sensitivity Distribution (SSD 18) data for arthropod species exposed to cadmium in very hard water at T>15C over long (3-30 days) exposure

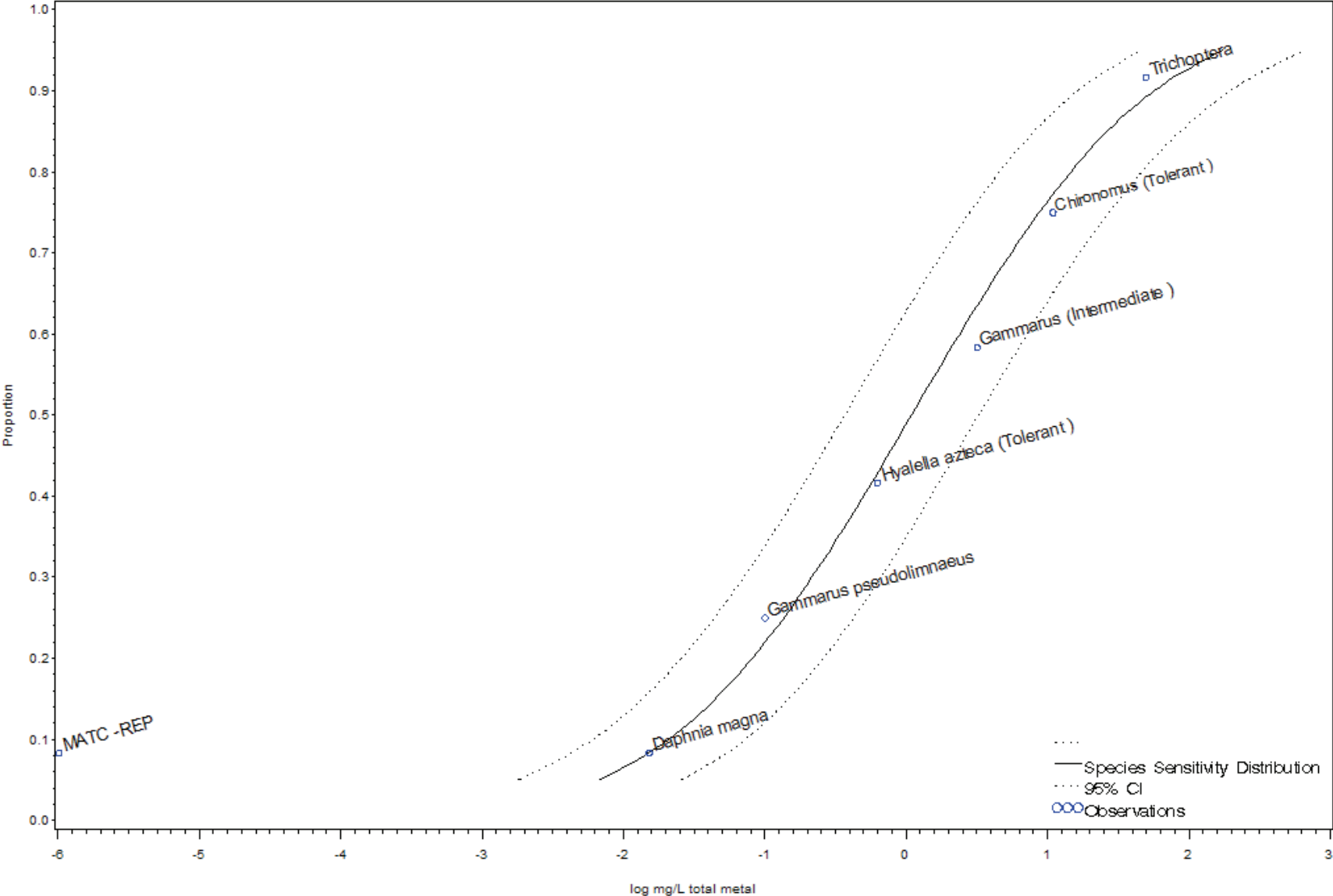
| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|----------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 6 | 0.58842 | 5.46977 | 0.95813 | -0.72913 | 10.4236 | 4 | 0.039427 |

Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log | | | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|------------------|-------------|-------------|--------------------|
| | | | | | Central Tendency | log UpperCI | log LowerCI | |
| 0.05 | 3.35515 | 0.0003 | 0.003 | 0.0000 | -3.59375 | -2.58817 | -4.59934 | 10.0307 |
| 0.10 | 3.71845 | 0.0011 | 0.009 | 0.0001 | -2.97633 | -2.05194 | -3.90072 | 8.2832 |
| 0.20 | 4.15838 | 0.0059 | 0.041 | 0.0008 | -2.22868 | -1.38286 | -3.07451 | 6.8691 |
| 0.25 | 4.32551 | 0.0114 | 0.076 | 0.0017 | -1.94465 | -1.12176 | -2.76753 | 6.5006 |
| 0.30 | 4.47560 | 0.0204 | 0.131 | 0.0032 | -1.68957 | -0.88361 | -2.49554 | 6.2405 |
| 0.50 | 5.00000 | 0.1591 | 0.952 | 0.0266 | -0.79837 | -0.02118 | -1.57555 | 5.8196 |
| 0.75 | 5.67449 | 2.2280 | 14.493 | 0.3425 | 0.34791 | 1.16116 | -0.46534 | 6.3513 |
| 0.90 | 6.28155 | 23.9660 | 193.930 | 2.9617 | 1.37960 | 2.28764 | 0.47155 | 7.9683 |
| 0.95 | 6.64485 | 99.3156 | 962.288 | 10.2501 | 1.99702 | 2.98330 | 1.01073 | 9.5860 |

| Data Summary | | | | | | |
|-----------------------|---------|-----------------------------|-------------------|----------|-----------------------|---------|
| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
| 0.25000 | 4.32551 | Ceriodaphnia reticulata | 0.0153 | -1.81531 | . | . |
| 0.25000 | . | -->EC50 -REP | . | -4.17990 | . | . |
| 0.25000 | . | -->LOEC -REP | . | -8.51719 | . | . |
| 0.25000 | . | -->MATC -REP | . | -4.75599 | . | . |
| 0.25000 | 4.32551 | Daphnia magna | 0.0153 | -1.81531 | . | . |
| 0.25000 | . | -->BCM | . | -6.81245 | . | . |
| 0.25000 | . | -->EC50 -REP | . | -5.65499 | . | . |
| 0.25000 | . | -->ENZ | . | -6.81245 | . | . |
| 0.25000 | . | -->GRO | . | -6.81245 | . | . |
| 0.25000 | . | -->LOEC -REP | . | -7.60090 | . | . |
| 0.25000 | . | -->MATC -REP | . | -5.95224 | . | . |
| 0.25000 | 4.32551 | Daphnia pulex | 0.0153 | -1.81531 | . | . |
| 0.25000 | . | -->EC50 -REP | . | -4.17990 | . | . |
| 0.25000 | . | -->LOEC -REP | . | -8.51719 | . | . |
| 0.25000 | . | -->MATC -REP | . | -4.75599 | . | . |
| 0.75000 | 5.67449 | Diaptomus forbesi | 3.7991 | 0.57968 | 0.11160 | 0.19252 |
| 0.58333 | 5.21043 | Hyalella azteca (Tolerant) | 0.0927 | -1.03306 | 0.40679 | 0.39378 |
| 0.91667 | 6.38299 | Procambarus clarkii | 33.4594 | 1.52452 | 0.25160 | 0.16504 |
| 0.91667 | . | -->ENZ | . | 0.00000 | . | . |

Chromium SSD for Arthropods - in soft water at T>15C over long (3-30 days) exposure



Species Sensitivity Distribution (SSD 50) data for arthropod species exposed to Chromium in soft water at T>15C over long (3-30 days) exposure

| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|----------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 6 | 0.74693 | 4.97097 | 0.98847 | 0.038867 | 8.54650 | 4 | 0.013908 |

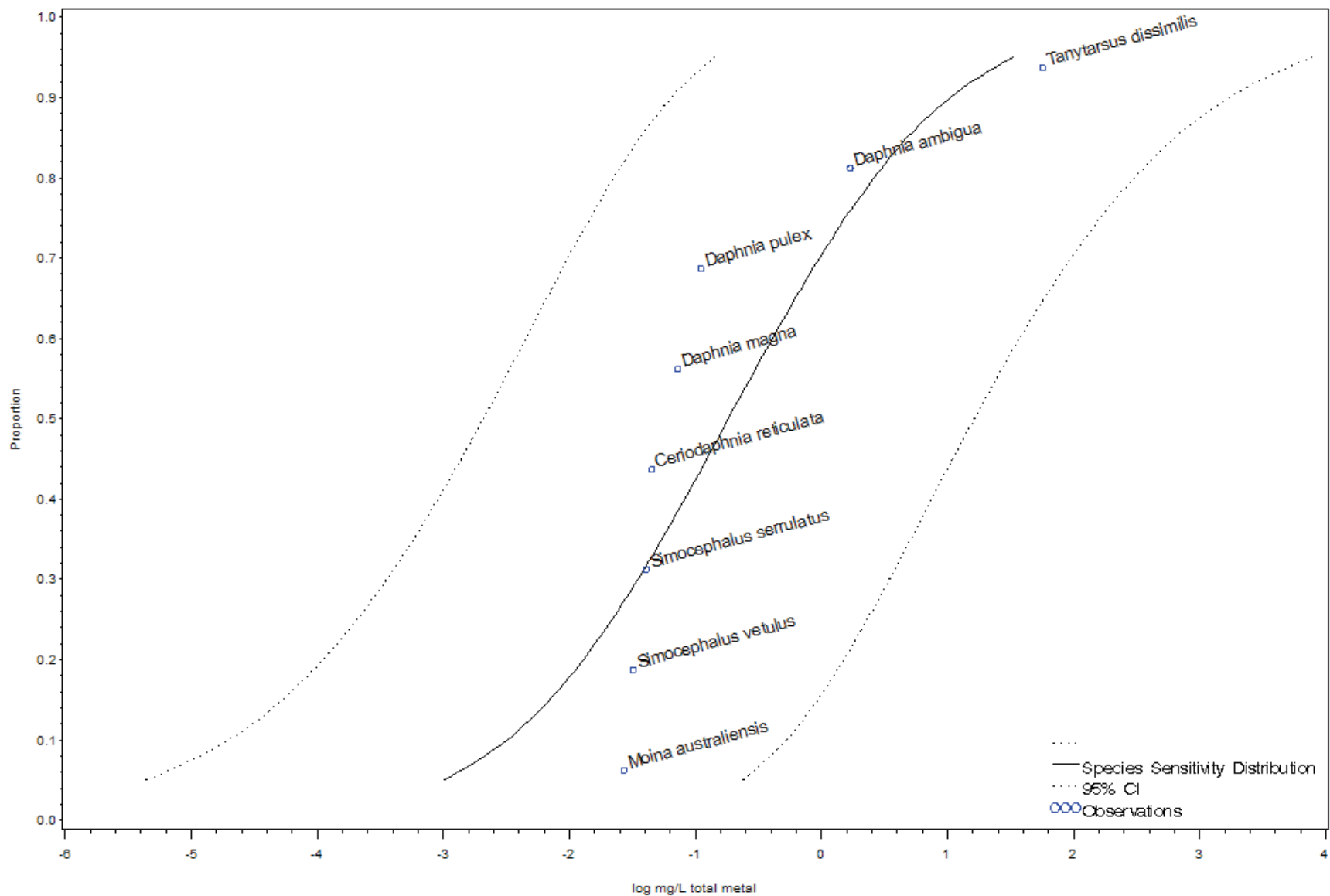
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log | | | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|------------------|-------------|-------------|--------------------|
| | | | | | Central Tendency | log UpperCI | log LowerCI | |
| 0.05 | 3.35515 | 0.007 | 0.019 | 0.0025 | -2.16328 | -1.72004 | -2.60652 | 2.41450 |
| 0.10 | 3.71845 | 0.021 | 0.055 | 0.0081 | -1.67689 | -1.26312 | -2.09065 | 2.20710 |
| 0.20 | 4.15838 | 0.082 | 0.199 | 0.0336 | -1.08790 | -0.70189 | -1.47392 | 2.02116 |
| 0.25 | 4.32551 | 0.137 | 0.327 | 0.0572 | -0.86415 | -0.48601 | -1.24228 | 1.96991 |
| 0.30 | 4.47560 | 0.217 | 0.512 | 0.0921 | -0.66321 | -0.29076 | -1.03565 | 1.93325 |
| 0.50 | 5.00000 | 1.094 | 2.526 | 0.4735 | 0.03887 | 0.40243 | -0.32470 | 1.87679 |
| 0.75 | 5.67449 | 8.747 | 20.894 | 3.6622 | 0.94188 | 1.32002 | 0.56374 | 1.96991 |
| 0.90 | 6.28155 | 56.836 | 147.363 | 21.9208 | 1.75462 | 2.16839 | 1.34086 | 2.20710 |
| 0.95 | 6.64485 | 174.187 | 483.347 | 62.7730 | 2.24102 | 2.68426 | 1.79777 | 2.41450 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric | | Standard Deviation | CV |
|--------------------|---------|-----------------------------|-----------|----------|--------------------|---------|
| | | | Mean | LogMean | | |
| 0.75000 | 5.67449 | Chironomus (Tolerant) | 11.0000 | 1.04139 | . | . |
| 0.08333 | 3.61701 | Daphnia magna | 0.0153 | -1.81597 | 0.22202 | 0.12226 |
| 0.08333 | . | -->MATC -REP | . | -5.99146 | . | . |
| 0.58333 | 5.21043 | Gammarus (Intermediate) | 3.2000 | 0.50515 | . | . |
| 0.25000 | 4.32551 | Gammarus pseudolimnaeus | 0.1010 | -0.99568 | . | . |
| 0.41667 | 4.78957 | Hyalella azteca (Tolerant) | 0.6300 | -0.20066 | . | . |
| 0.91667 | 6.38299 | Trichoptera | 50.0000 | 1.69897 | . | . |

Chromium SSD for Arthropods - in soft water at T>15C over moderate (1-3 days) exposure



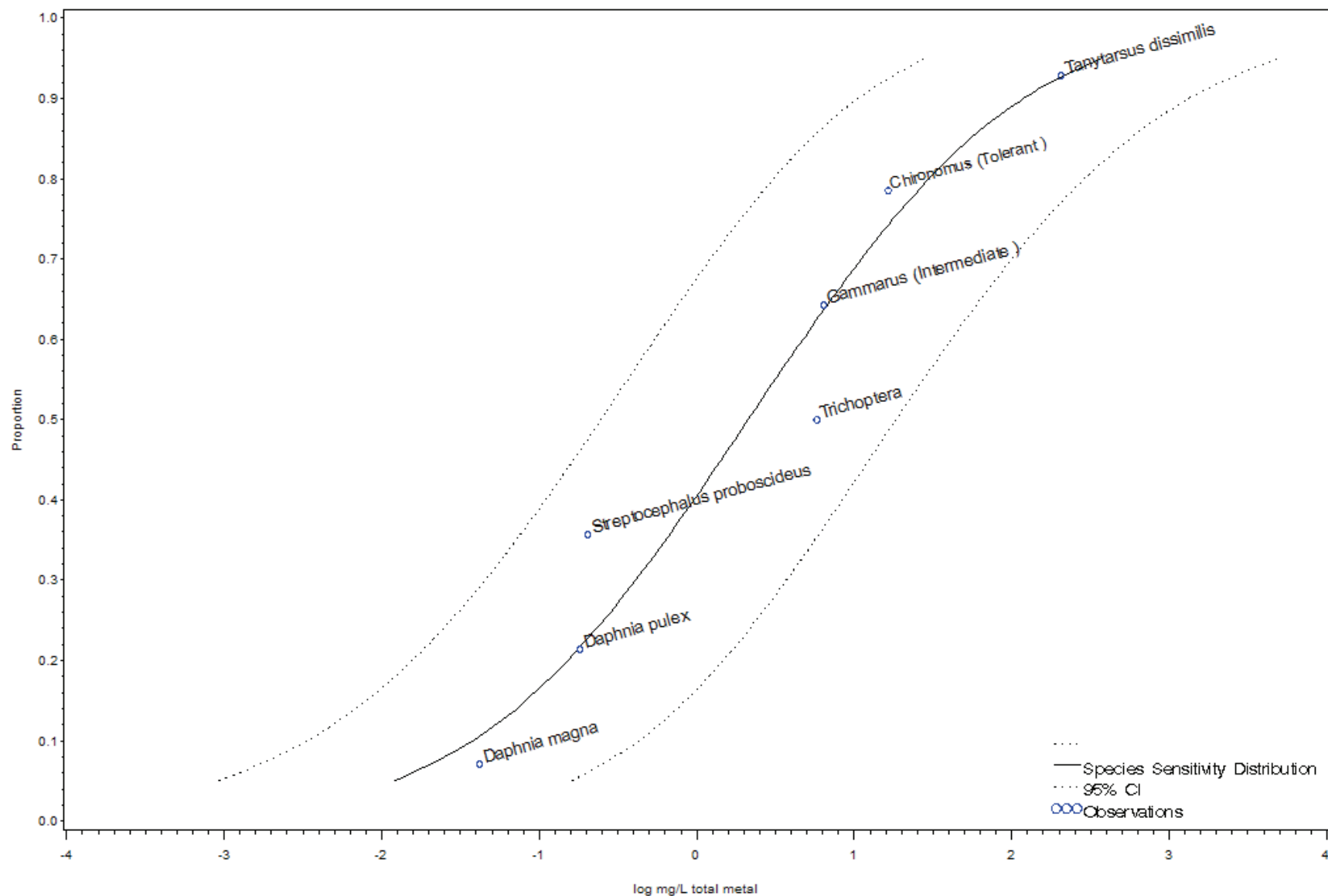
Species Sensitivity Distribution (SSD 51) data for arthropod species exposed to Chromium in soft water at T>15C over moderate (1-3 days) exposure

| Model Parameters | | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|---------|--|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE | |
| 8 | 0.72953 | 5.53725 | 0.73605 | -0.73643 | 9.41596 | 6 | 0.29951 | |

| Predicted Values | | | | | | | | |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
| 0.05 | 3.35515 | 0.0010 | 0.08 | 0.00001 | -2.99110 | -1.11020 | -4.87200 | 76.0025 |
| 0.10 | 3.71845 | 0.0032 | 0.18 | 0.00006 | -2.49311 | -0.73613 | -4.25009 | 57.1279 |
| 0.20 | 4.15838 | 0.0129 | 0.56 | 0.00029 | -1.89008 | -0.24968 | -3.53048 | 43.6692 |
| 0.25 | 4.32551 | 0.0218 | 0.88 | 0.00054 | -1.66098 | -0.05366 | -3.26830 | 40.4627 |
| 0.30 | 4.47560 | 0.0351 | 1.34 | 0.00091 | -1.45525 | 0.12816 | -3.03866 | 38.2922 |
| 0.50 | 5.00000 | 0.1835 | 6.45 | 0.00522 | -0.73643 | 0.80971 | -2.28258 | 35.1395 |
| 0.75 | 5.67449 | 1.5421 | 62.44 | 0.03809 | 0.18812 | 1.79544 | -1.41920 | 40.4627 |
| 0.90 | 6.28155 | 10.4771 | 598.72 | 0.18334 | 1.02024 | 2.77722 | -0.73674 | 57.1279 |
| 0.95 | 6.64485 | 32.9786 | 2506.89 | 0.43384 | 1.51823 | 3.39914 | -0.36267 | 76.0025 |

| Data Summary | | | | | | | |
|--------------------|---------|-------------------------|----------------|----------|--------------------|---------|--|
| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV | |
| 0.4375 | 4.84269 | Ceriodaphnia reticulata | 0.0452 | -1.34486 | . | . | |
| 0.8125 | 5.88715 | Daphnia ambigua | 1.7000 | 0.23045 | . | . | |
| 0.5625 | 5.15731 | Daphnia magna | 0.0729 | -1.13738 | 0.96863 | 0.85163 | |
| 0.6875 | 5.48878 | Daphnia pulex | 0.1111 | -0.95420 | 0.44431 | 0.46563 | |
| 0.0625 | 3.46588 | Moina australiensis | 0.0273 | -1.56456 | 0.09959 | 0.06366 | |
| 0.3125 | 4.51122 | Simocephalus serrulatus | 0.0409 | -1.38828 | . | . | |
| 0.1875 | 4.11285 | Simocephalus vetulus | 0.0323 | -1.49080 | . | . | |
| 0.9375 | 6.53412 | Tanytarsus dissimilis | 57.3000 | 1.75815 | . | . | |

Chromium SSD for Arthropods - in soft water at T>15C over short (<=1 day) exposure



Species Sensitivity Distribution (SSD 52) data for arthropod species exposed to Chromium in soft water at T>15C over short (<=1 day) exposure

| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|----------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 7 | 0.73325 | 4.75964 | 0.94634 | 0.32780 | 10.2356 | 5 | 0.062415 |

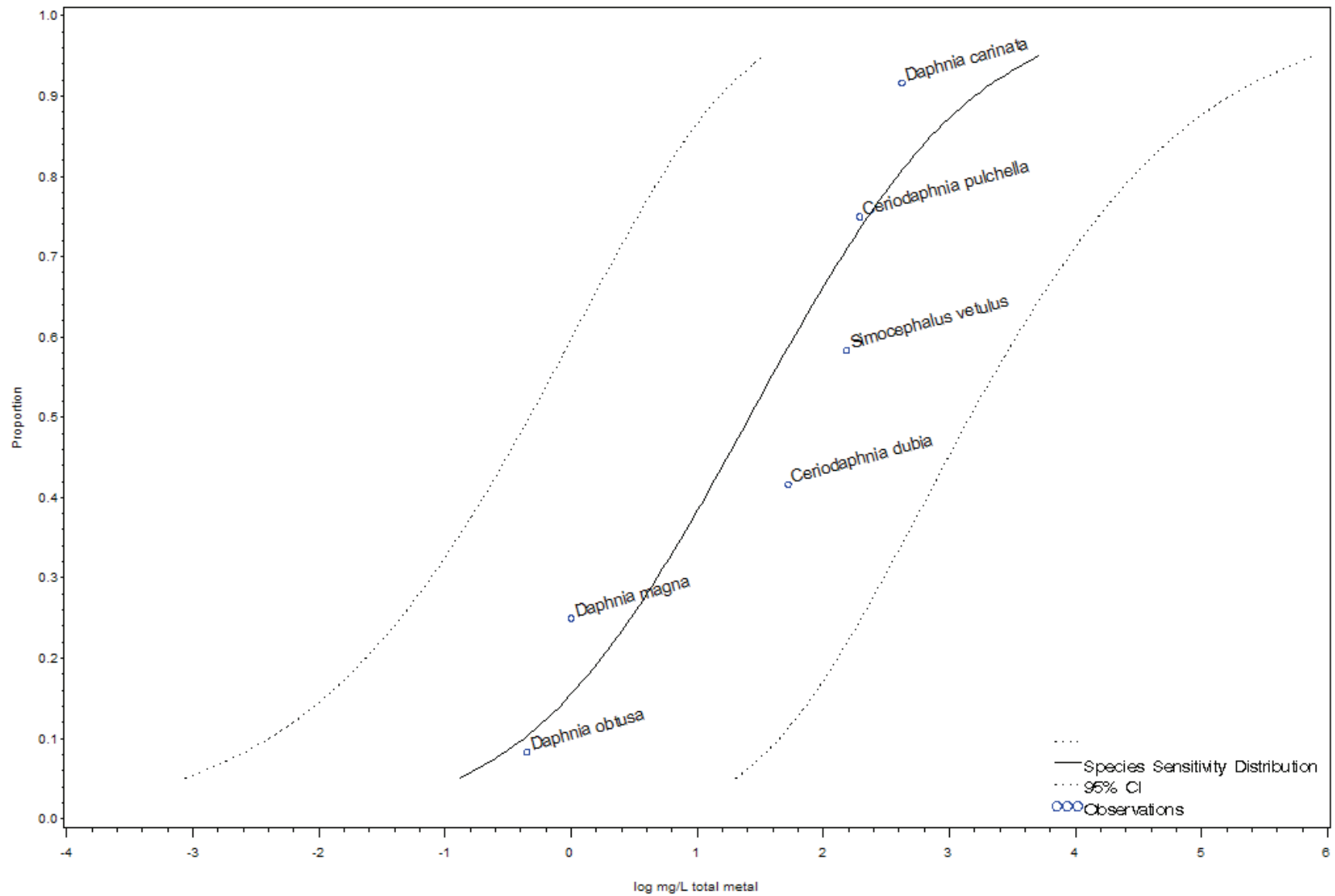
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log | | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|------------------|-------------|-------------|--------------------|
| | | | | | Central Tendency | log UpperCI | | |
| 0.05 | 3.35515 | 0.012 | 0.09 | 0.0016 | -1.91545 | -1.03770 | -2.79320 | 7.41410 |
| 0.10 | 3.71845 | 0.038 | 0.25 | 0.0057 | -1.41998 | -0.59573 | -2.24422 | 6.52199 |
| 0.20 | 4.15838 | 0.151 | 0.90 | 0.0255 | -0.82000 | -0.04581 | -1.59420 | 5.77741 |
| 0.25 | 4.32551 | 0.256 | 1.47 | 0.0445 | -0.59207 | 0.16798 | -1.35212 | 5.58130 |
| 0.30 | 4.47560 | 0.410 | 2.30 | 0.0729 | -0.38738 | 0.36247 | -1.13722 | 5.44347 |
| 0.50 | 5.00000 | 2.127 | 11.53 | 0.3925 | 0.32780 | 1.06177 | -0.40617 | 5.23509 |
| 0.75 | 5.67449 | 17.688 | 101.79 | 3.0734 | 1.24767 | 2.00772 | 0.48762 | 5.58130 |
| 0.90 | 6.28155 | 119.009 | 794.01 | 17.8374 | 2.07558 | 2.89983 | 1.25133 | 6.52199 |
| 0.95 | 6.64485 | 372.434 | 2810.62 | 49.3512 | 2.57105 | 3.44880 | 1.69330 | 7.41410 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|------------------------------|----------------|----------|--------------------|---------|
| 0.78571 | 5.79164 | Chironomus (Tolerant) | 16.500 | 1.21748 | . | . |
| 0.07143 | 3.53477 | Daphnia magna | 0.042 | -1.37687 | 0.30378 | 0.22063 |
| 0.21429 | 4.20836 | Daphnia pulex | 0.182 | -0.74062 | 0.24127 | 0.32577 |
| 0.64286 | 5.36611 | Gammarus (Intermediate) | 6.400 | 0.80618 | . | . |
| 0.35714 | 4.63389 | Streptocephalus proboscideus | 0.205 | -0.68886 | 0.32720 | 0.47498 |
| 0.92857 | 6.46523 | Tanytarsus dissimilis | 206.000 | 2.31387 | . | . |
| 0.50000 | 5.00000 | Trichoptera | 5.800 | 0.76343 | . | . |

Chromium SSD for Arthropods - in very hard water at T>15C over short (<=1 day) exposure



Species Sensitivity Distribution (SSD 53) data for arthropod species exposed to Chromium in very hard water at T>15C over short (<=1 day) exposure

Model Parameters

| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
|-------------|---------|-----------|-----------|------------|---------|----|---------|
| 6 | 0.71719 | 3.98528 | 0.85514 | 1.41486 | 8.01973 | 4 | 0.17470 |

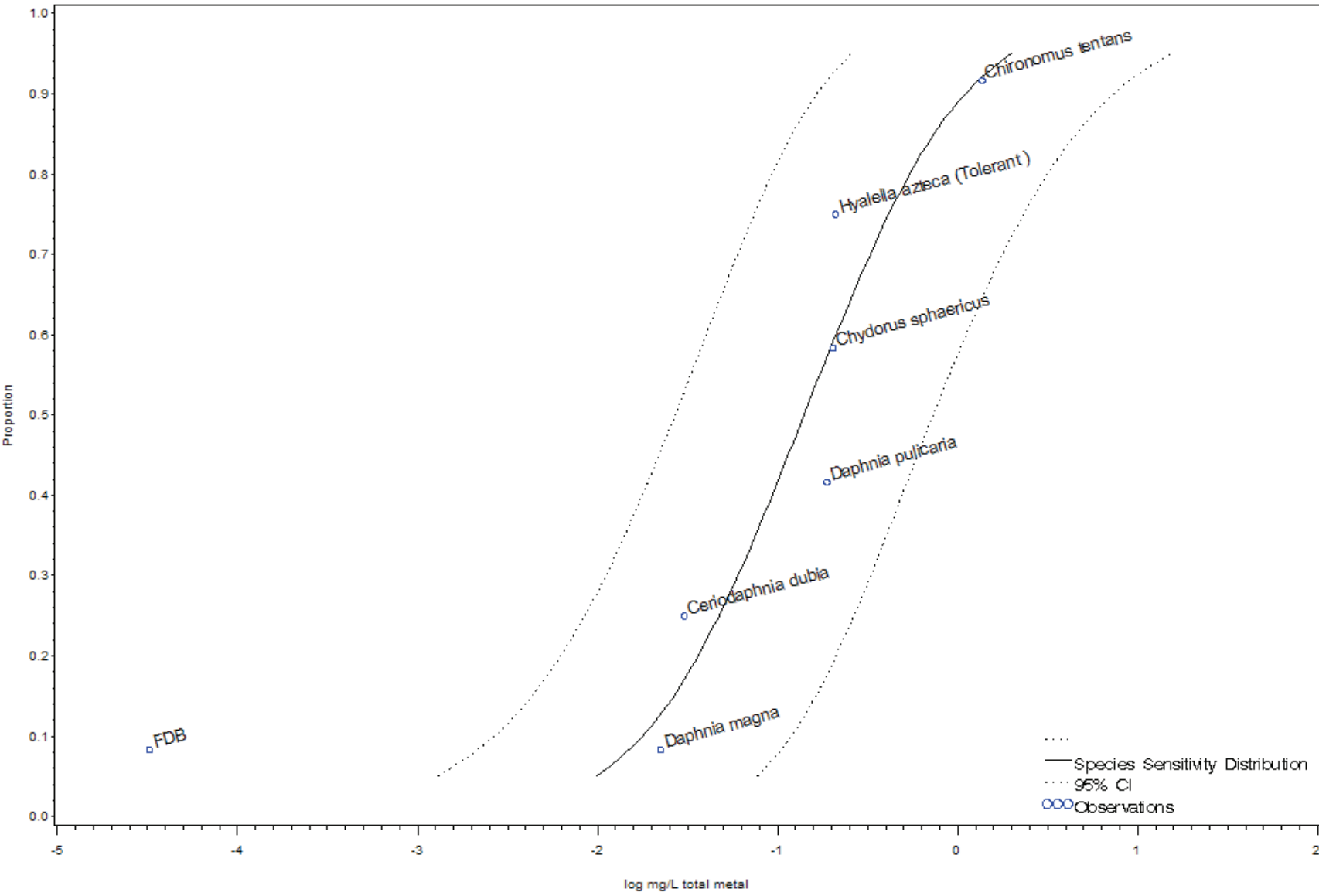
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|-----------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.13 | 6.29 | 0.003 | -0.87862 | 0.79866 | -2.55590 | 47.5430 |
| 0.10 | 3.71845 | 0.42 | 15.21 | 0.012 | -0.37205 | 1.18211 | -1.92622 | 35.7952 |
| 0.20 | 4.15838 | 1.74 | 47.72 | 0.064 | 0.24136 | 1.67868 | -1.19596 | 27.3366 |
| 0.25 | 4.32551 | 2.98 | 75.57 | 0.118 | 0.47440 | 1.87835 | -0.92956 | 25.3091 |
| 0.30 | 4.47560 | 4.83 | 115.73 | 0.201 | 0.68367 | 2.06344 | -0.69609 | 23.9336 |
| 0.50 | 5.00000 | 25.99 | 571.24 | 1.183 | 1.41486 | 2.75682 | 0.07291 | 21.9308 |
| 0.75 | 5.67449 | 226.64 | 5744.91 | 8.941 | 2.35533 | 3.75928 | 0.95138 | 25.3091 |
| 0.90 | 6.28155 | 1591.40 | 57008.98 | 44.424 | 3.20178 | 4.75594 | 1.64762 | 35.7952 |
| 0.95 | 6.64485 | 5109.11 | 243010.07 | 107.415 | 3.70835 | 5.38562 | 2.03107 | 47.5430 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|------------------------|----------------|----------|--------------------|---------|
| 0.41667 | 4.78957 | Ceriodaphnia dubia | 53.000 | 1.72428 | . | . |
| 0.75000 | 5.67449 | Ceriodaphnia pulchella | 196.000 | 2.29226 | . | . |
| 0.91667 | 6.38299 | Daphnia carinata | 423.000 | 2.62634 | . | . |
| 0.25000 | 4.32551 | Daphnia magna | 1.013 | 0.00558 | 0.60242 | 107.983 |
| 0.08333 | 3.61701 | Daphnia obtusa | 0.450 | -0.34679 | . | . |
| 0.58333 | 5.21043 | Simocephalus vetulus | 154.000 | 2.18752 | . | . |

Copper SSD for Arthropods - in moderately hard water at T>15C over moderate (1-3 days) exposure



Species Sensitivity Distribution (SSD 72) data for arthropod species exposed to copper in moderately hard water at T>15C over moderate (1-3 days) exposure

Model Parameters

| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
|-------------|---------|-----------|-----------|------------|---------|----|---------|
| 6 | 1.43112 | 6.22092 | 0.90295 | -0.85312 | 2.12665 | 4 | 0.11704 |

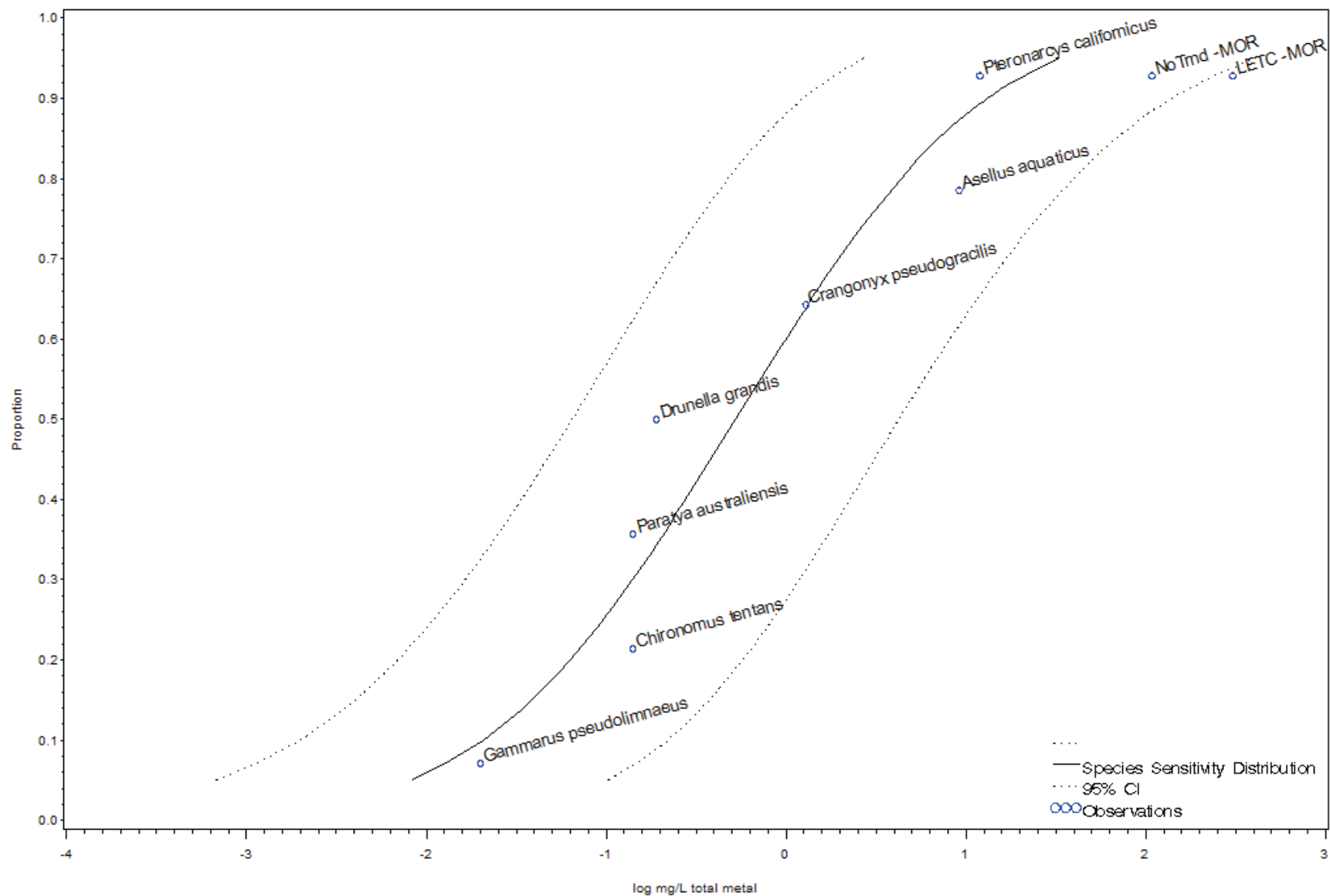
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.00994 | 0.04775 | 0.00207 | -2.00246 | -1.32106 | -2.68387 | 4.59355 |
| 0.10 | 3.71845 | 0.01784 | 0.07666 | 0.00415 | -1.74861 | -1.11542 | -2.38179 | 4.06446 |
| 0.20 | 4.15838 | 0.03621 | 0.14007 | 0.00936 | -1.44120 | -0.85364 | -2.02876 | 3.61017 |
| 0.25 | 4.32551 | 0.04738 | 0.17788 | 0.01262 | -1.32442 | -0.74986 | -1.89898 | 3.48822 |
| 0.30 | 4.47560 | 0.06032 | 0.22162 | 0.01642 | -1.21955 | -0.65440 | -1.78469 | 3.40187 |
| 0.50 | 5.00000 | 0.14024 | 0.49811 | 0.03949 | -0.85312 | -0.30267 | -1.40357 | 3.27024 |
| 0.75 | 5.67449 | 0.41513 | 1.55862 | 0.11057 | -0.38182 | 0.19274 | -0.95638 | 3.48822 |
| 0.90 | 6.28155 | 1.10247 | 4.73751 | 0.25656 | 0.04237 | 0.67555 | -0.59082 | 4.06446 |
| 0.95 | 6.64485 | 1.97800 | 9.49796 | 0.41193 | 0.29623 | 0.97763 | -0.38518 | 4.59355 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|-----------------------------|----------------|----------|--------------------|---------|
| 0.25000 | 4.32551 | Ceriodaphnia dubia | 0.03054 | -1.51519 | 0.44633 | 0.29457 |
| 0.91667 | 6.38299 | Chironomus tentans | 1.37108 | 0.13706 | 0.88793 | 6.47826 |
| 0.58333 | 5.21043 | Chydorus sphaericus | 0.20375 | -0.69089 | 0.03013 | 0.04361 |
| 0.08333 | 3.61701 | Daphnia magna | 0.02243 | -1.64913 | 0.74840 | 0.45381 |
| 0.08333 | . | -->FDB | . | -4.48739 | . | . |
| 0.41667 | 4.78957 | Daphnia pulicaria | 0.18850 | -0.72468 | 0.26558 | 0.36647 |
| 0.75000 | 5.67449 | Hyalella azteca (Tolerant) | 0.21092 | -0.67589 | 0.78243 | 1.15763 |

Copper SSD for Arthropods - in soft water at T<=15C over long (3-30 days) exposure



Species Sensitivity Distribution (SSD 73) data for arthropod species exposed to copper in soft water at T<=15C over long (3-30 days) exposure

Model Parameters

| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
|-------------|---------|-----------|-----------|------------|---------|----|----------|
| 7 | 0.91454 | 5.25692 | 0.92142 | -0.28093 | 6.40643 | 5 | 0.091398 |

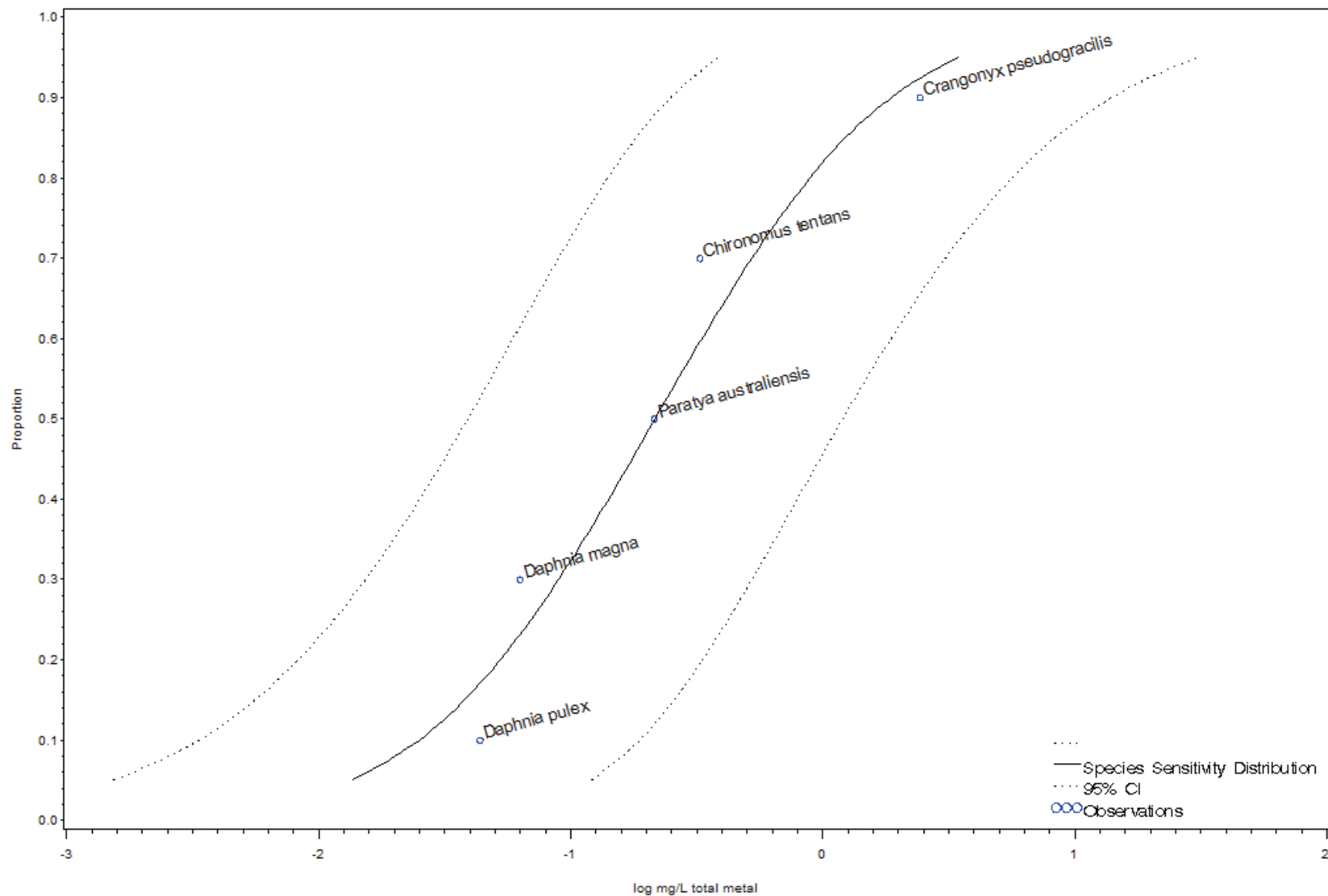
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.0083 | 0.060 | 0.00116 | -2.07948 | -1.22441 | -2.93454 | 7.02290 |
| 0.10 | 3.71845 | 0.0208 | 0.132 | 0.00328 | -1.68223 | -0.88029 | -2.48416 | 6.17995 |
| 0.20 | 4.15838 | 0.0629 | 0.356 | 0.01113 | -1.20119 | -0.44902 | -1.95335 | 5.47457 |
| 0.25 | 4.32551 | 0.0958 | 0.524 | 0.01752 | -1.01844 | -0.28036 | -1.75653 | 5.28845 |
| 0.30 | 4.47560 | 0.1399 | 0.747 | 0.02617 | -0.85433 | -0.12641 | -1.58225 | 5.15756 |
| 0.50 | 5.00000 | 0.5237 | 2.699 | 0.10162 | -0.28093 | 0.43118 | -0.99303 | 4.95952 |
| 0.75 | 5.67449 | 2.8615 | 15.656 | 0.52300 | 0.45659 | 1.19467 | -0.28150 | 5.28845 |
| 0.90 | 6.28155 | 13.1939 | 83.620 | 2.08180 | 1.12037 | 1.92231 | 0.31844 | 6.17995 |
| 0.95 | 6.64485 | 32.9324 | 235.879 | 4.59788 | 1.51762 | 2.37269 | 0.66256 | 7.02290 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|--------------------------|----------------|----------|--------------------|---------|
| 0.78571 | 5.79164 | Asellus aquaticus | 9.2100 | 0.96426 | . | . |
| 0.21429 | 4.20836 | Chironomus tentans | 0.1410 | -0.85069 | 0.45034 | 0.52938 |
| 0.64286 | 5.36611 | Crangonyx pseudogracilis | 1.2900 | 0.11059 | . | . |
| 0.50000 | 5.00000 | Drunella grandis | 0.1900 | -0.72125 | . | . |
| 0.07143 | 3.53477 | Gammarus pseudolimnaeus | 0.0200 | -1.69897 | . | . |
| 0.35714 | 4.63389 | Paratya australiensis | 0.1414 | -0.84961 | 0.16495 | 0.19415 |
| 0.92857 | 6.46523 | Pteronarcys californicus | 12.0000 | 1.07918 | 0.00000 | 0.00000 |
| 0.92857 | . | -->LETC -MOR | . | 2.48491 | . | . |
| 0.92857 | . | -->NoTrend -MOR | . | 2.03584 | 0.43269 | . |

Copper SSD for Arthropods - in soft water at T<=15C over moderate (1-3 days) exposure



Species Sensitivity Distribution (SSD 74) data for arthropod species exposed to copper in soft water at T<=15C over moderate (1-3 days) exposure

Model Parameters

| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
|-------------|---------|-----------|-----------|------------|---------|----|----------|
| 5 | 1.37003 | 5.91056 | 0.93318 | -0.66463 | 1.90653 | 3 | 0.085406 |

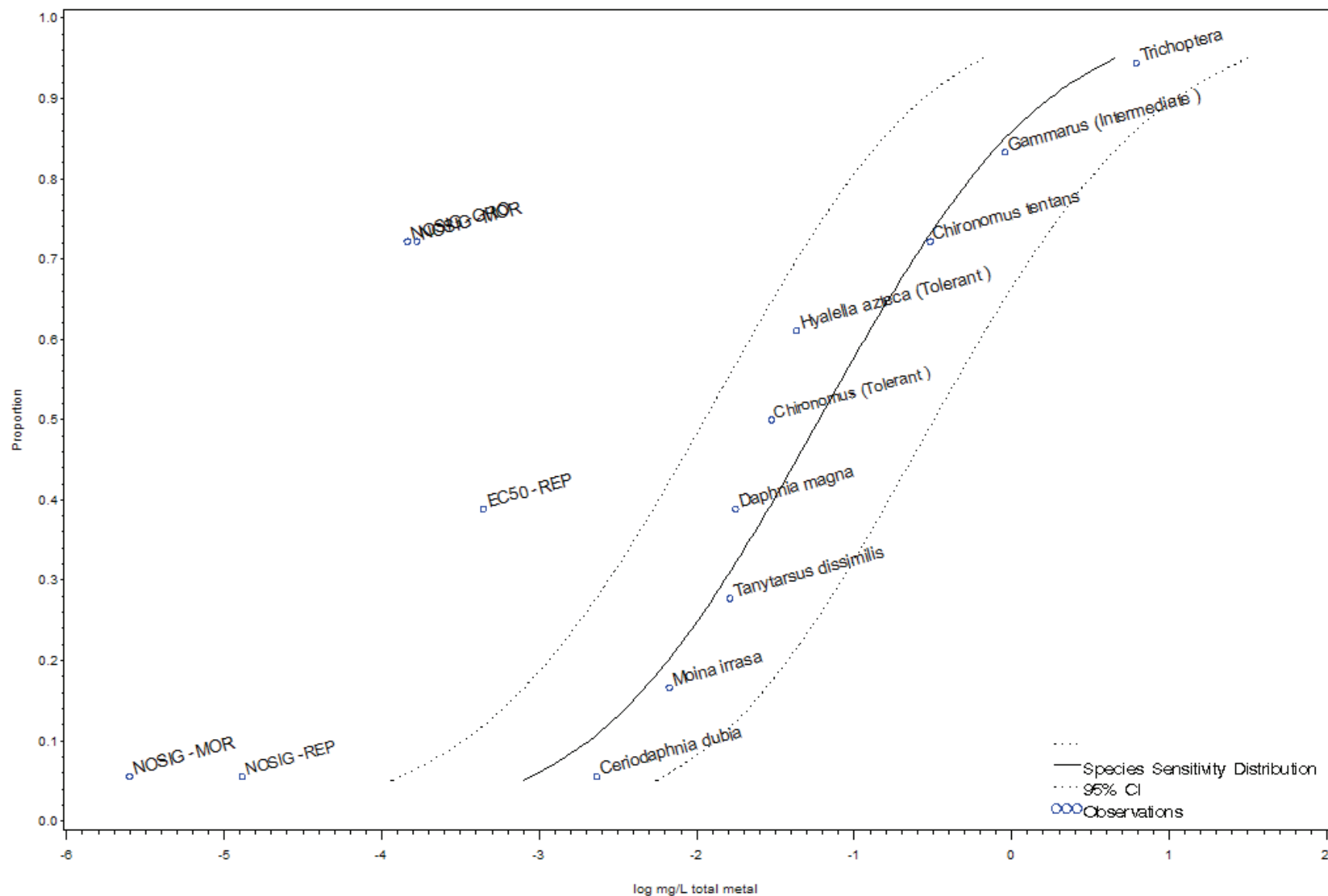
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.01364 | 0.0687 | 0.00271 | -1.86523 | -1.16314 | -2.56732 | 4.83750 |
| 0.10 | 3.71845 | 0.02512 | 0.1113 | 0.00567 | -1.60005 | -0.95347 | -2.24663 | 4.20614 |
| 0.20 | 4.15838 | 0.05261 | 0.2063 | 0.01341 | -1.27894 | -0.68540 | -1.87248 | 3.66731 |
| 0.25 | 4.32551 | 0.06967 | 0.2639 | 0.01840 | -1.15695 | -0.57864 | -1.73526 | 3.52307 |
| 0.30 | 4.47560 | 0.08966 | 0.3310 | 0.02429 | -1.04740 | -0.48015 | -1.61464 | 3.42102 |
| 0.50 | 5.00000 | 0.21646 | 0.7679 | 0.06102 | -0.66463 | -0.11472 | -1.21454 | 3.26553 |
| 0.75 | 5.67449 | 0.67249 | 2.5468 | 0.17757 | -0.17231 | 0.40600 | -0.75062 | 3.52307 |
| 0.90 | 6.28155 | 1.86548 | 8.2674 | 0.42093 | 0.27079 | 0.91737 | -0.37579 | 4.20614 |
| 0.95 | 6.64485 | 3.43533 | 17.3006 | 0.68214 | 0.53597 | 1.23806 | -0.16612 | 4.83750 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|--------------------------|----------------|----------|--------------------|---------|
| 0.7 | 5.52440 | Chironomus tentans | 0.32700 | -0.48545 | . | . |
| 0.9 | 6.28155 | Crangonyx pseudogracilis | 2.44000 | 0.38739 | . | . |
| 0.3 | 4.47560 | Daphnia magna | 0.06316 | -1.19953 | 0.18028 | 0.15029 |
| 0.1 | 3.71845 | Daphnia pulex | 0.04380 | -1.35857 | 0.29669 | 0.21838 |
| 0.5 | 5.00000 | Paratya australiensis | 0.21529 | -0.66698 | 0.11971 | 0.17948 |

Copper SSD for Arthropods - in soft water at T>15C over long (3-30 days) exposure



Species Sensitivity Distribution (SSD 75) data for arthropod species exposed to copper in soft water at T>15C over long (3-30 days) exposure

| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|----------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 9 | 0.87676 | 6.07138 | 0.94116 | -1.22198 | 9.55323 | 7 | 0.065589 |

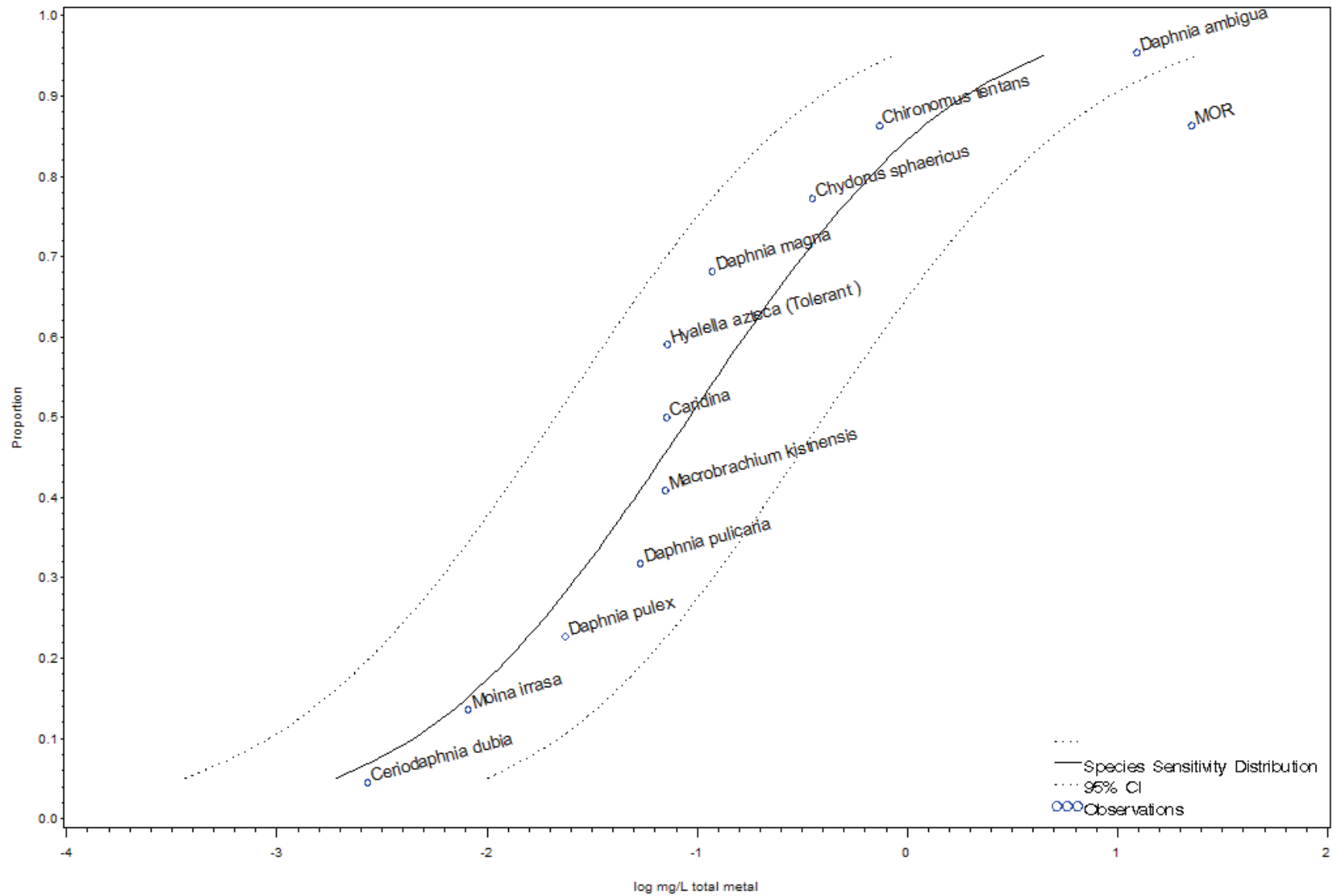
Predicted Values

| Proportion Species | Probt | log | | | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| | | Central Tendency | UpperCI | LowerCI | | | | |
| 0.05 | 3.35515 | 0.00080 | 0.0038 | 0.00017 | -3.09805 | -2.42490 | -3.77119 | 4.49913 |
| 0.10 | 3.71845 | 0.00207 | 0.0090 | 0.00048 | -2.68367 | -2.04431 | -3.32304 | 4.12937 |
| 0.20 | 4.15838 | 0.00658 | 0.0267 | 0.00162 | -2.18190 | -1.57376 | -2.79004 | 3.80987 |
| 0.25 | 4.32551 | 0.01020 | 0.0406 | 0.00257 | -1.99128 | -1.39189 | -2.59067 | 3.72393 |
| 0.30 | 4.47560 | 0.01513 | 0.0593 | 0.00386 | -1.82009 | -1.22700 | -2.41319 | 3.66307 |
| 0.50 | 5.00000 | 0.05998 | 0.2298 | 0.01566 | -1.22198 | -0.63863 | -1.80533 | 3.57030 |
| 0.75 | 5.67449 | 0.35263 | 1.4019 | 0.08870 | -0.45268 | 0.14671 | -1.05207 | 3.72393 |
| 0.90 | 6.28155 | 1.73667 | 7.5698 | 0.39843 | 0.23972 | 0.87908 | -0.39965 | 4.12937 |
| 0.95 | 6.64485 | 4.50908 | 21.2440 | 0.95706 | 0.65409 | 1.32724 | -0.01906 | 4.49913 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric | | Standard Deviation | CV |
|--------------------|---------|-----------------------------|-----------|----------|--------------------|---------|
| | | | Mean | LogMean | | |
| 0.05556 | 3.40678 | Ceriodaphnia dubia | 0.00233 | -2.63221 | 0.29541 | 0.11223 |
| 0.05556 | . | -->NOSIG -MOR | . | -5.59942 | 0.00000 | . |
| 0.05556 | . | -->NOSIG -REP | . | -4.88406 | 0.76964 | . |
| 0.50000 | 5.00000 | Chironomus (Tolerant) | 0.03000 | -1.52288 | . | . |
| 0.72222 | 5.58946 | Chironomus tentans | 0.30430 | -0.51669 | 0.68374 | 1.32331 |
| 0.72222 | . | -->NOSIG -GRO | . | -3.83506 | . | . |
| 0.72222 | . | -->NOSIG -MOR | . | -3.77662 | . | . |
| 0.38889 | 4.71778 | Daphnia magna | 0.01770 | -1.75206 | 0.39923 | 0.22786 |
| 0.38889 | . | -->EC50 -REP | . | -3.35241 | . | . |
| 0.83333 | 5.96742 | Gammarus (Intermediate) | 0.91000 | -0.04096 | . | . |
| 0.61111 | 5.28222 | Hyalella azteca (Tolerant) | 0.04308 | -1.36577 | 0.16027 | 0.11735 |
| 0.61111 | . | -->MOR | . | -4.96185 | . | . |
| 0.16667 | 4.03258 | Moina irrasa | 0.00673 | -2.17181 | 0.06465 | 0.02977 |
| 0.27778 | 4.41054 | Tanytarsus dissimilis | 0.01630 | -1.78781 | . | . |
| 0.94444 | 6.59322 | Trichoptera | 6.20000 | 0.79239 | . | . |

Copper SSD for Arthropods - in soft water at T>15C over moderate (1-3 days) exposure



Species Sensitivity Distribution (SSD 76) data for arthropod species exposed to copper in soft water at T>15C over moderate (1-3 days) exposure

| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|----------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 11 | 0.97740 | 6.01262 | 0.93572 | -1.03604 | 9.59289 | 9 | 0.069944 |

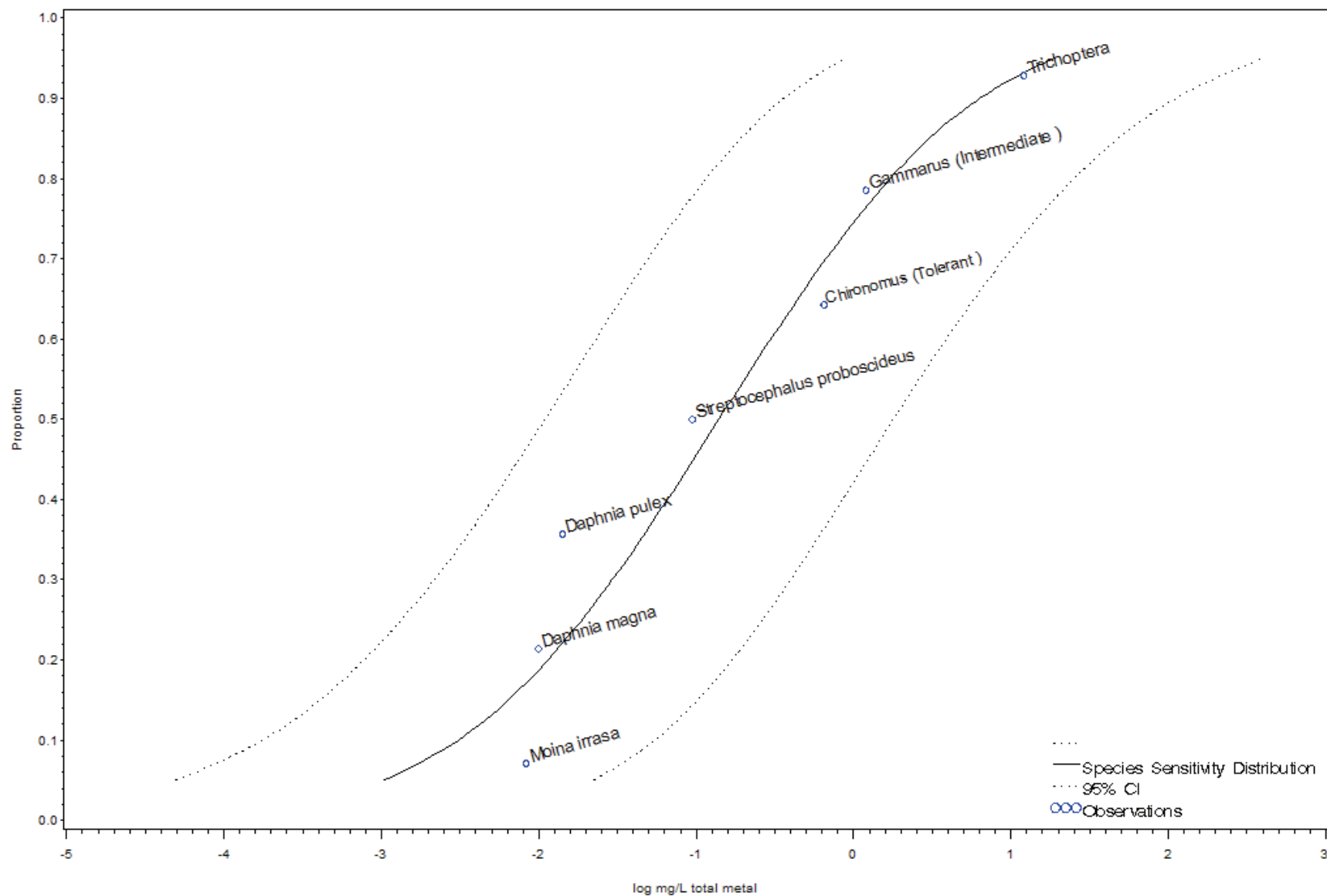
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.00191 | 0.0073 | 0.00050 | -2.71892 | -2.13495 | -3.30290 | 3.57623 |
| 0.10 | 3.71845 | 0.00450 | 0.0163 | 0.00124 | -2.34722 | -1.78822 | -2.90622 | 3.34640 |
| 0.20 | 4.15838 | 0.01267 | 0.0436 | 0.00369 | -1.89712 | -1.36101 | -2.43322 | 3.14541 |
| 0.25 | 4.32551 | 0.01879 | 0.0636 | 0.00555 | -1.72612 | -1.19640 | -2.25584 | 3.09097 |
| 0.30 | 4.47560 | 0.02676 | 0.0897 | 0.00799 | -1.57256 | -1.04742 | -2.09770 | 3.05232 |
| 0.50 | 5.00000 | 0.09204 | 0.3034 | 0.02792 | -1.03604 | -0.51797 | -1.55410 | 2.99326 |
| 0.75 | 5.67449 | 0.45087 | 1.5268 | 0.13315 | -0.34595 | 0.18377 | -0.87567 | 3.09097 |
| 0.90 | 6.28155 | 1.88429 | 6.8258 | 0.52017 | 0.27515 | 0.83415 | -0.28386 | 3.34640 |
| 0.95 | 6.64485 | 4.43456 | 17.0148 | 1.15578 | 0.64685 | 1.23083 | 0.06288 | 3.57623 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|-----------------------------|----------------|----------|--------------------|---------|
| 0.50000 | 5.00000 | Caridina | 0.0720 | -1.14267 | . | . |
| 0.04545 | 3.30938 | Ceriodaphnia dubia | 0.0027 | -2.56543 | . | . |
| 0.86364 | 6.09680 | Chironomus tentans | 0.7412 | -0.13007 | 0.20361 | 1.56539 |
| 0.86364 | . | -->MOR | . | 1.35403 | 0.36121 | . |
| 0.77273 | 5.74786 | Chydorus sphaericus | 0.3540 | -0.45102 | 0.13284 | 0.29453 |
| 0.95455 | 6.69062 | Daphnia ambigua | 12.4000 | 1.09342 | . | . |
| 0.68182 | 5.47279 | Daphnia magna | 0.1185 | -0.92611 | 1.56310 | 1.68782 |
| 0.22727 | 4.25214 | Daphnia pulex | 0.0237 | -1.62591 | 0.52905 | 0.32539 |
| 0.31818 | 4.52721 | Daphnia pulicaria | 0.0536 | -1.27074 | 0.11844 | 0.09320 |
| 0.59091 | 5.22988 | Hyalella azteca (Tolerant) | 0.0722 | -1.14146 | . | . |
| 0.40909 | 4.77012 | Macrobrachium kistnensis | 0.0710 | -1.14874 | . | . |
| 0.13636 | 3.90320 | Moina irrasa | 0.0082 | -2.08767 | 0.21064 | 0.10090 |

Copper SSD for Arthropods - in soft water at T>15C over short (<=1 day) exposure



Species Sensitivity Distribution (SSD 77) data for arthropod species exposed to copper in soft water at T>15C over short (<=1 day) exposure

| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|----------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 7 | 0.77379 | 5.66077 | 0.91659 | -0.85394 | 8.90219 | 5 | 0.097005 |

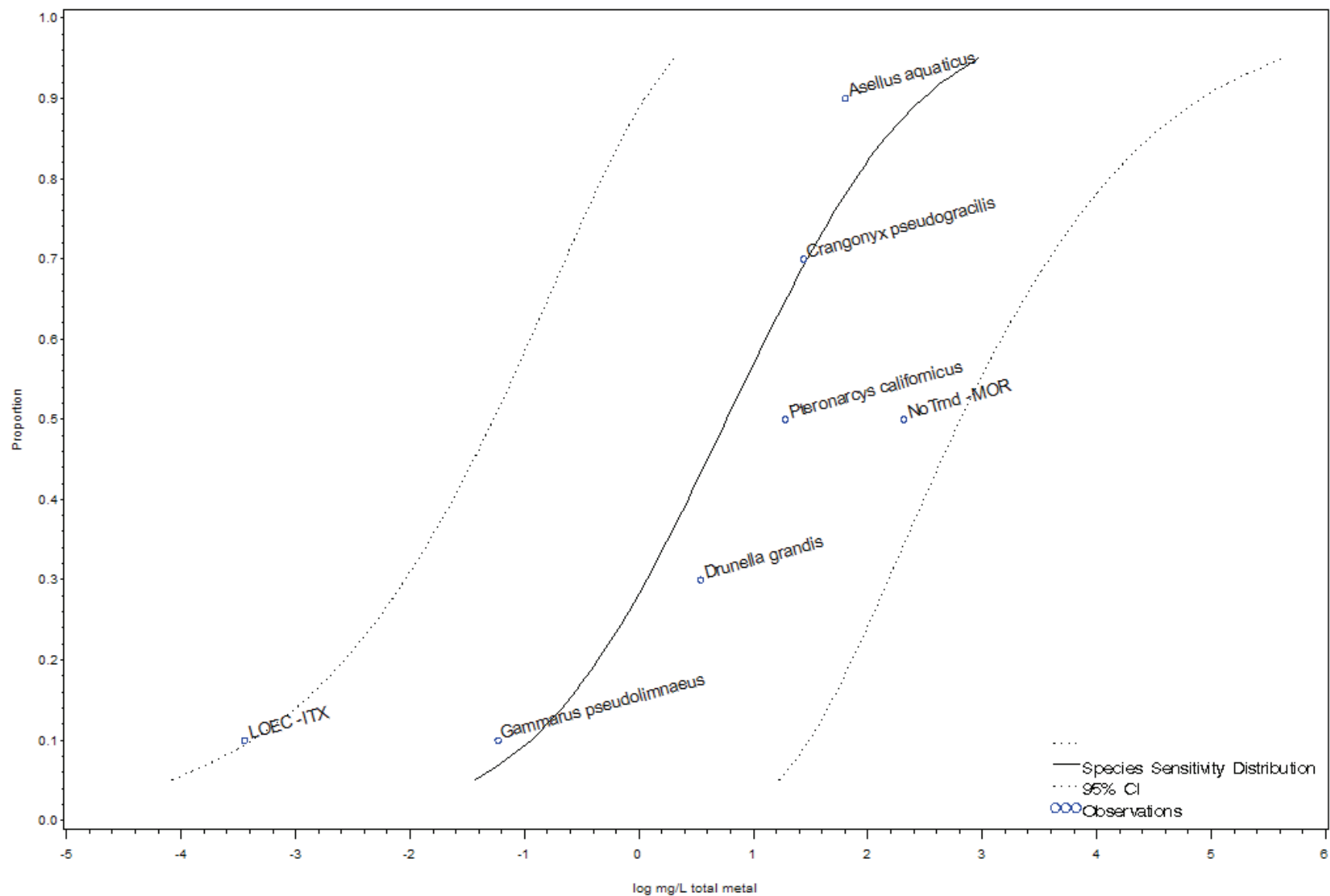
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log | | | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|------------------|-------------|-------------|--------------------|
| | | | | | Central Tendency | log UpperCI | log LowerCI | |
| 0.05 | 3.35515 | 0.0010 | 0.012 | 0.00010 | -2.97964 | -1.93767 | -4.02161 | 10.9240 |
| 0.10 | 3.71845 | 0.0031 | 0.029 | 0.00033 | -2.51013 | -1.53315 | -3.48712 | 9.3784 |
| 0.20 | 4.15838 | 0.0114 | 0.094 | 0.00139 | -1.94160 | -1.02550 | -2.85769 | 8.1218 |
| 0.25 | 4.32551 | 0.0188 | 0.149 | 0.00237 | -1.72561 | -0.82674 | -2.62447 | 7.7963 |
| 0.30 | 4.47560 | 0.0294 | 0.226 | 0.00382 | -1.53164 | -0.64522 | -2.41806 | 7.5689 |
| 0.50 | 5.00000 | 0.1400 | 1.031 | 0.01901 | -0.85394 | 0.01313 | -1.72101 | 7.2274 |
| 0.75 | 5.67449 | 1.0417 | 8.253 | 0.13148 | 0.01773 | 0.91659 | -0.88114 | 7.7963 |
| 0.90 | 6.28155 | 6.3424 | 60.150 | 0.66875 | 0.80225 | 1.77924 | -0.17473 | 9.3784 |
| 0.95 | 6.64485 | 18.6965 | 205.937 | 1.69740 | 1.27176 | 2.31373 | 0.22979 | 10.9240 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|------------------------------|----------------|----------|--------------------|---------|
| 0.64286 | 5.36611 | Chironomus (Tolerant) | 0.6500 | -0.18709 | . | . |
| 0.21429 | 4.20836 | Daphnia magna | 0.0100 | -2.00000 | 0.00000 | 0.00000 |
| 0.35714 | 4.63389 | Daphnia pulex | 0.0141 | -1.84949 | 0.21286 | 0.11509 |
| 0.78571 | 5.79164 | Gammarus (Intermediate) | 1.2000 | 0.07918 | . | . |
| 0.07143 | 3.53477 | Moina irrasa | 0.0083 | -2.07977 | 0.27702 | 0.13320 |
| 0.50000 | 5.00000 | Streptocephalus proboscideus | 0.0948 | -1.02321 | 0.16968 | 0.16583 |
| 0.92857 | 6.46523 | Trichoptera | 12.1000 | 1.08279 | . | . |

Lead SSD for Arthropods - in soft water at T<=15C over long (3-30 days) exposure



Species Sensitivity Distribution (SSD 118) data for arthropod species exposed to lead in soft water at T<=15C over long (3-30 days) exposure

Model Parameters

| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
|-------------|---------|-----------|-----------|------------|---------|----|---------|
| 5 | 0.74797 | 4.42428 | 0.85001 | 0.76970 | 5.82625 | 3 | 0.19172 |

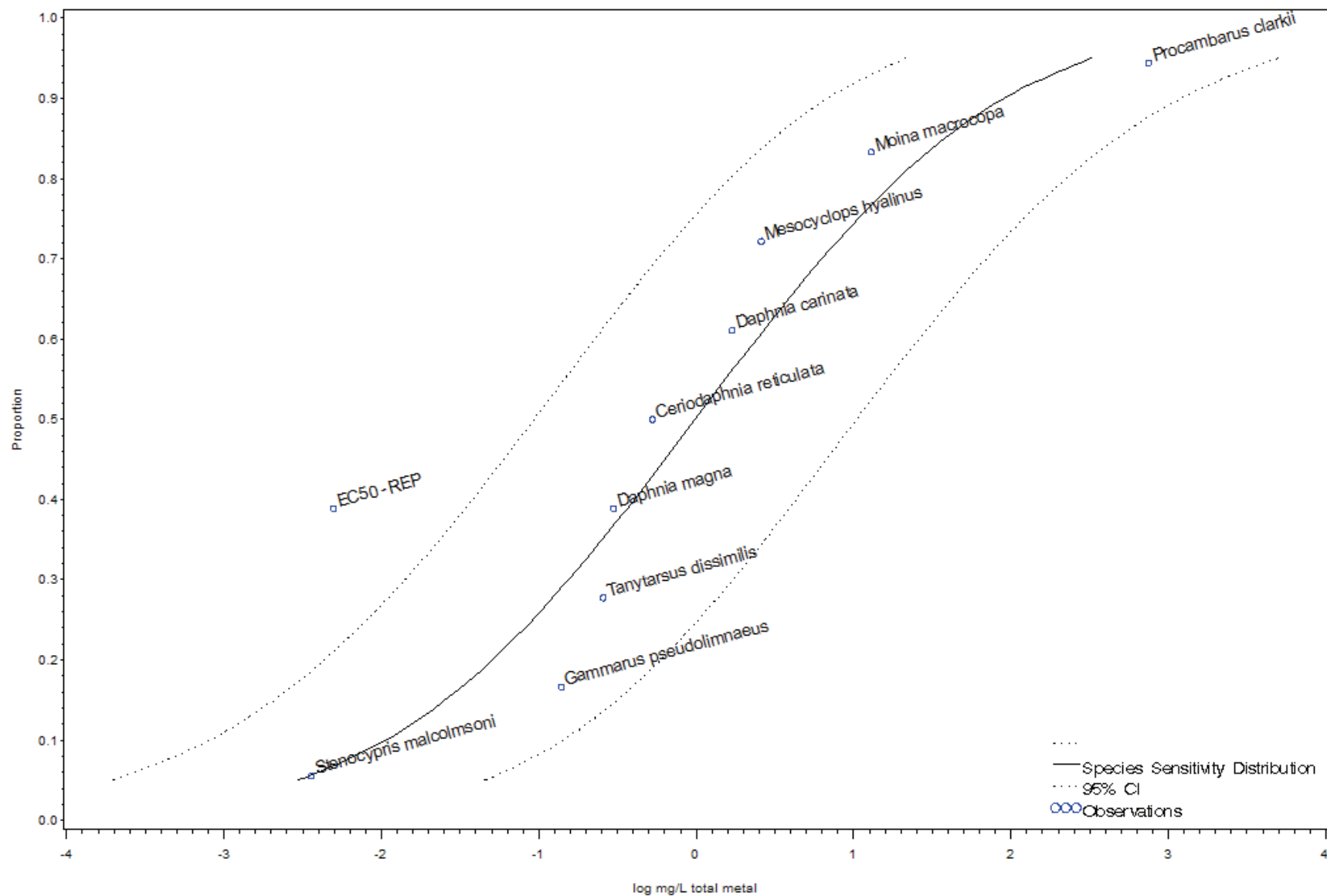
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|----------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.037 | 3.42 | 0.0004 | -1.42938 | 0.53349 | -3.39225 | 91.7946 |
| 0.10 | 3.71845 | 0.114 | 7.16 | 0.0018 | -0.94367 | 0.85461 | -2.74194 | 62.8304 |
| 0.20 | 4.15838 | 0.441 | 19.26 | 0.0101 | -0.35550 | 1.28460 | -1.99561 | 43.6393 |
| 0.25 | 4.32551 | 0.738 | 29.00 | 0.0188 | -0.13206 | 1.46244 | -1.72655 | 39.2836 |
| 0.30 | 4.47560 | 1.171 | 42.65 | 0.0322 | 0.06861 | 1.62990 | -1.49269 | 36.3886 |
| 0.50 | 5.00000 | 5.884 | 190.04 | 0.1822 | 0.76970 | 2.27885 | -0.73944 | 32.2647 |
| 0.75 | 5.67449 | 46.931 | 1844.81 | 1.1939 | 1.67146 | 3.26595 | 0.07697 | 39.2836 |
| 0.90 | 6.28155 | 304.136 | 19113.81 | 4.8394 | 2.48307 | 4.28135 | 0.68479 | 62.8304 |
| 0.95 | 6.64485 | 930.643 | 85438.17 | 10.1371 | 2.96878 | 4.93165 | 1.00591 | 91.7946 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|--------------------------|----------------|----------|--------------------|---------|
| 0.9 | 6.28155 | Asellus aquaticus | 64.1000 | 1.80686 | . | . |
| 0.7 | 5.52440 | Crangonyx pseudogracilis | 27.6000 | 1.44091 | . | . |
| 0.3 | 4.47560 | Drunella grandis | 3.5000 | 0.54407 | . | . |
| 0.1 | 3.71845 | Gammarus pseudolimnaeus | 0.0593 | -1.22663 | 0.45262 | 0.36900 |
| 0.1 | . | -->LOEC -ITX | . | -3.44202 | . | . |
| 0.5 | 5.00000 | Pteronarcys californicus | 19.2000 | 1.28330 | . | . |
| 0.5 | . | -->NoTrend -MOR | . | 2.31649 | . | . |

Lead SSD for Arthropods - in soft water at T>15C over long (3-30 days) exposure



Species Sensitivity Distribution (SSD 119) data for arthropod species exposed to lead in soft water at T>15C over long (3-30 days) exposure

Model Parameters

| Num Species | Slope | Intercept | R_squared | GrandMean | CorrSSQ | DF | MSE |
|-------------|---------|-----------|-----------|-------------|---------|----|----------|
| 9 | 0.65271 | 5.00357 | 0.93548 | -.005468619 | 17.1335 | 7 | 0.071915 |

Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.003 | 0.03 | 0.0003 | -2.52552 | -1.57799 | -3.47305 | 8.74922 |
| 0.10 | 3.71845 | 0.011 | 0.09 | 0.0014 | -1.96891 | -1.06915 | -2.86867 | 7.81294 |
| 0.20 | 4.15838 | 0.051 | 0.36 | 0.0071 | -1.29490 | -0.43931 | -2.15049 | 7.03172 |
| 0.25 | 4.32551 | 0.091 | 0.64 | 0.0131 | -1.03884 | -0.19563 | -1.88205 | 6.82612 |
| 0.30 | 4.47560 | 0.155 | 1.06 | 0.0227 | -0.80889 | 0.02541 | -1.64320 | 6.68171 |
| 0.50 | 5.00000 | 0.987 | 6.53 | 0.1493 | -0.00547 | 0.81504 | -0.82598 | 6.46351 |
| 0.75 | 5.67449 | 10.664 | 74.32 | 1.5300 | 1.02791 | 1.87111 | 0.18470 | 6.82612 |
| 0.90 | 6.28155 | 90.777 | 720.67 | 11.4344 | 1.95797 | 2.85773 | 1.05821 | 7.81294 |
| 0.95 | 6.64485 | 327.026 | 2898.13 | 36.9018 | 2.51458 | 3.46212 | 1.56705 | 8.74922 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|-------------------------|----------------|----------|--------------------|----|
| 0.50000 | 5.00000 | Ceriodaphnia reticulata | 0.530 | -0.27572 | . | . |
| 0.61111 | 5.28222 | Daphnia carinata | 1.700 | 0.23045 | . | . |
| 0.38889 | 4.71778 | Daphnia magna | 0.300 | -0.52288 | . | . |
| 0.38889 | . | -->EC50 -REP | . | -2.30259 | . | . |
| 0.16667 | 4.03258 | Gammarus pseudolimnaeus | 0.140 | -0.85387 | . | . |
| 0.72222 | 5.58946 | Mesocyclops hyalinus | 2.600 | 0.41497 | . | . |
| 0.83333 | 5.96742 | Moina macrocopa | 13.000 | 1.11394 | . | . |
| 0.94444 | 6.59322 | Procambarus clarkii | 751.570 | 2.87597 | . | . |
| 0.05556 | 3.40678 | Stenocypris malcolmsoni | 0.004 | -2.44370 | . | . |
| 0.27778 | 4.41054 | Tanytarsus dissimilis | 0.258 | -0.58838 | . | . |

Species Sensitivity Distribution (SSD 120) data for arthropod species exposed to lead in soft water at T>15C over moderate (1-3 days) exposure

Model Parameters

| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
|-------------|---------|-----------|-----------|------------|---------|----|----------|
| 7 | 1.67885 | 4.51142 | 0.93882 | 0.28882 | 1.89695 | 5 | 0.069687 |

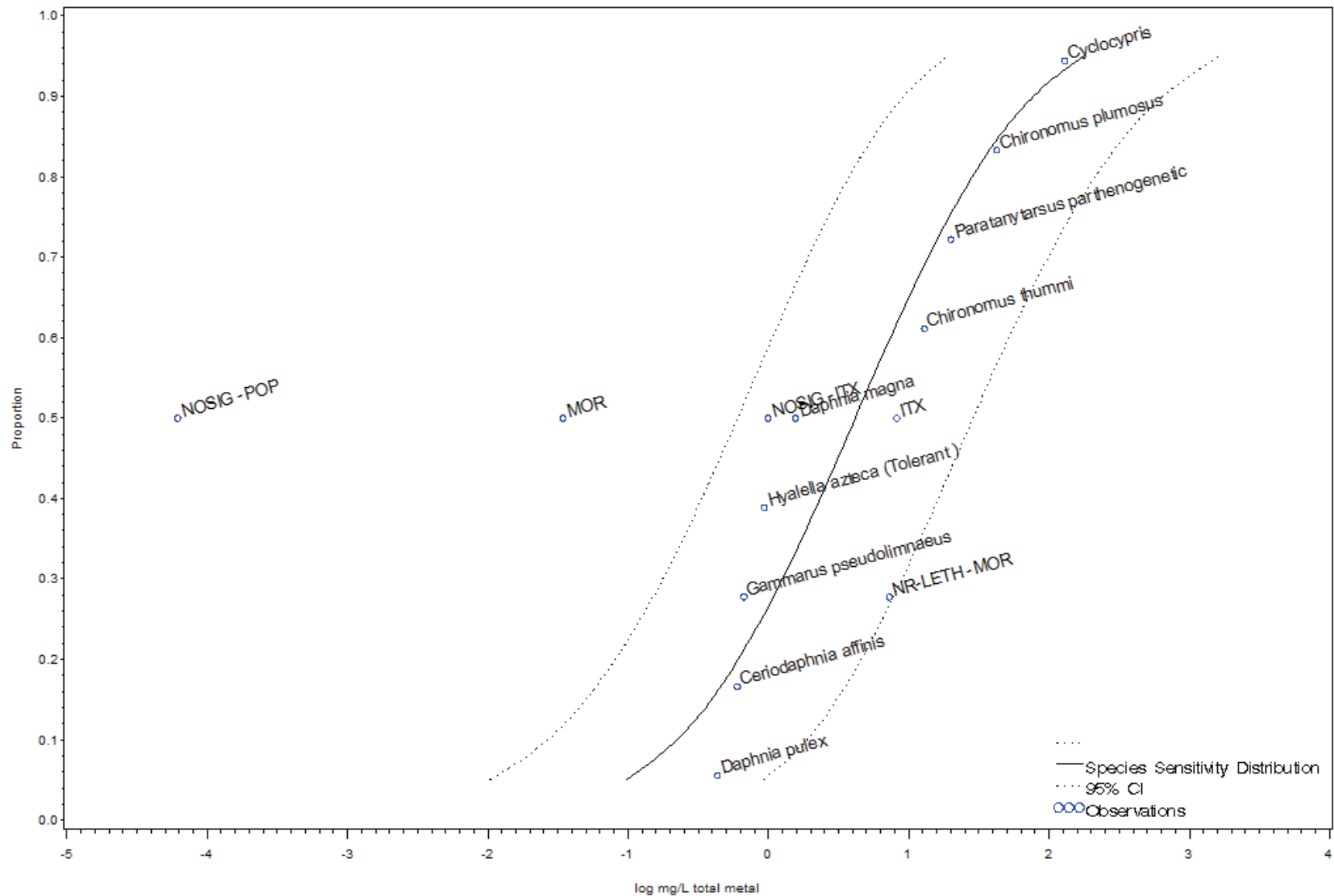
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.2048 | 0.5222 | 0.08030 | -0.68873 | -0.28215 | -1.09531 | 2.15812 |
| 0.10 | 3.71845 | 0.3370 | 0.8109 | 0.14008 | -0.47233 | -0.09102 | -0.85364 | 1.99045 |
| 0.20 | 4.15838 | 0.6162 | 1.4040 | 0.27043 | -0.21029 | 0.14737 | -0.56794 | 1.83966 |
| 0.25 | 4.32551 | 0.7749 | 1.7388 | 0.34537 | -0.11073 | 0.24024 | -0.46171 | 1.79807 |
| 0.30 | 4.47560 | 0.9521 | 2.1126 | 0.42905 | -0.02133 | 0.32482 | -0.36749 | 1.76835 |
| 0.50 | 5.00000 | 1.9544 | 4.2633 | 0.89598 | 0.29102 | 0.62975 | -0.04770 | 1.72292 |
| 0.75 | 5.67449 | 4.9292 | 11.0668 | 2.19552 | 0.69278 | 1.04402 | 0.34154 | 1.79972 |
| 0.90 | 6.28155 | 11.3338 | 27.2991 | 4.70544 | 1.05437 | 1.43615 | 0.67260 | 1.99348 |
| 0.95 | 6.64485 | 18.6541 | 47.6338 | 7.30519 | 1.27077 | 1.67792 | 0.86363 | 2.16192 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|-------------------------|----------------|----------|--------------------|---------|
| 0.50000 | 5.00000 | Ceriodaphnia reticulata | 2.30000 | 0.36173 | . | . |
| 0.50000 | . | -->LOEC -MOR | . | -1.38629 | . | . |
| 0.50000 | . | -->MATC -MOR | . | -1.96611 | . | . |
| 0.71429 | 5.56595 | Daphnia carinata | 5.50000 | 0.74036 | . | . |
| 0.71429 | . | -->LOEC -MOR | . | -0.79851 | . | . |
| 0.71429 | . | -->MATC -MOR | . | -3.10109 | . | . |
| 0.21429 | 4.20836 | Daphnia magna | 0.48234 | -0.31665 | 0.04262 | 0.13461 |
| 0.35714 | 4.63389 | Daphnia pulex | 1.42408 | 0.15353 | 0.61876 | 4.03013 |
| 0.07143 | 3.53477 | Gammarus pseudolimnaeus | 0.27500 | -0.56067 | . | . |
| 0.92857 | 6.46523 | Mesocyclops hyalinus | 8.00000 | 0.90309 | . | . |
| 0.92857 | . | -->LOEC -MOR | . | 0.91629 | . | . |
| 0.92857 | . | -->MATC -MOR | . | -1.38629 | . | . |
| 0.71429 | 5.56595 | Stenocypris malcolmsoni | 5.50000 | 0.74036 | . | . |
| 0.71429 | . | -->LOEC -MOR | . | 0.33647 | . | . |
| 0.71429 | . | -->MATC -MOR | . | -1.96611 | . | . |

Selenium SSD for Arthropods - in water at T>15C over moderate (1-3 days) exposure



Species Sensitivity Distribution (SSD 157) data for arthropod species exposed to selenium in water at T>15C over moderate (1-3 days) exposure

| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|---------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 9 | 1.01004 | 4.37437 | 0.89638 | 0.61942 | 6.85591 | 7 | 0.11550 |

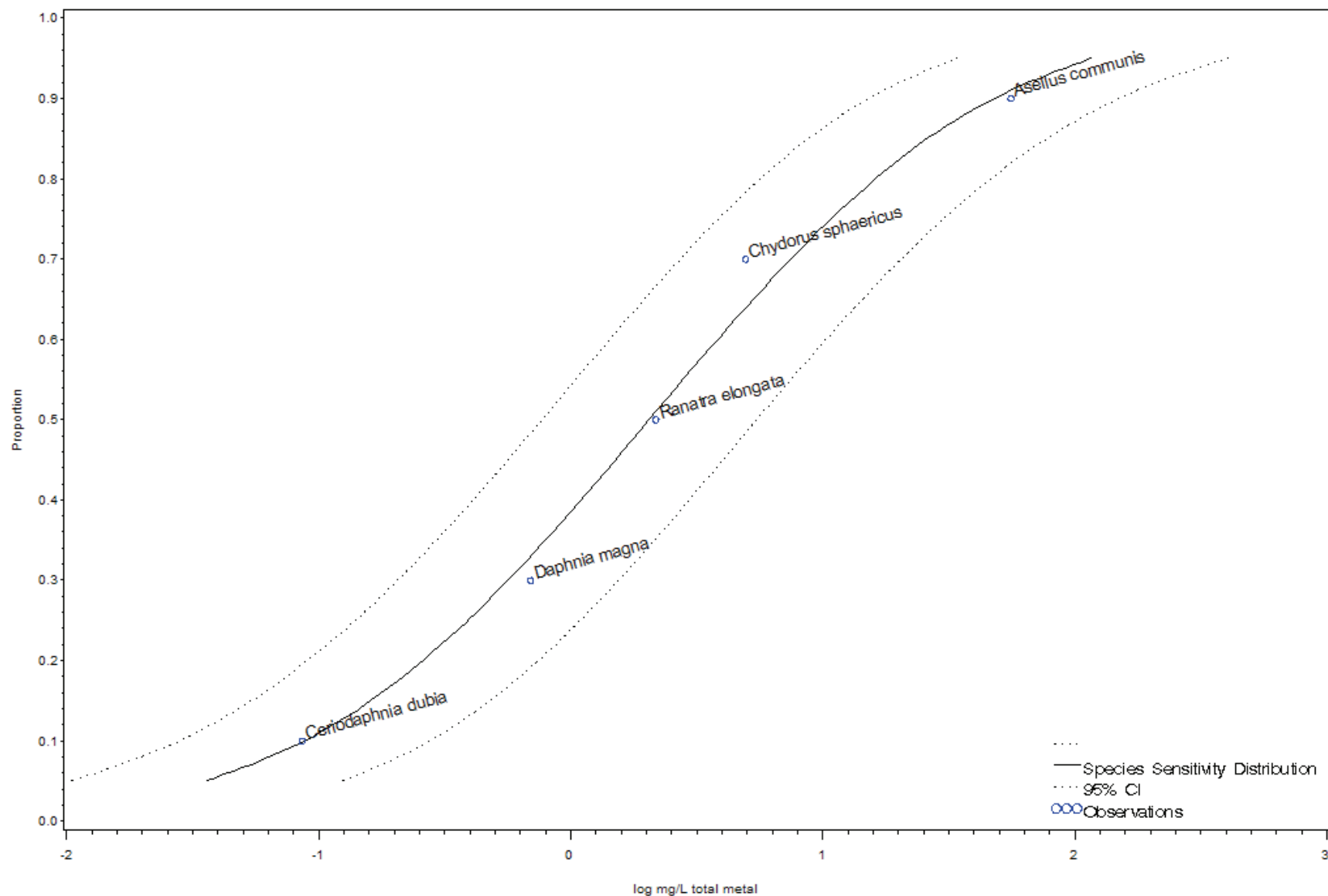
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log | | | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|------------------|-------------|-------------|--------------------|
| | | | | | Central Tendency | log UpperCI | log LowerCI | |
| 0.05 | 3.35515 | 0.098 | 0.59 | 0.0162 | -1.00909 | -0.22889 | -1.78930 | 5.86257 |
| 0.10 | 3.71845 | 0.224 | 1.23 | 0.0408 | -0.64940 | 0.09016 | -1.38896 | 5.30769 |
| 0.20 | 4.15838 | 0.611 | 3.08 | 0.1214 | -0.21384 | 0.48807 | -0.91575 | 4.83533 |
| 0.25 | 4.32551 | 0.895 | 4.40 | 0.1821 | -0.04837 | 0.64297 | -0.73972 | 4.70944 |
| 0.30 | 4.47560 | 1.260 | 6.08 | 0.2609 | 0.10023 | 0.78397 | -0.58352 | 4.62058 |
| 0.50 | 5.00000 | 4.163 | 19.56 | 0.8861 | 0.61942 | 1.29137 | -0.05254 | 4.48563 |
| 0.75 | 5.67449 | 19.373 | 95.18 | 3.9433 | 1.28720 | 1.97855 | 0.59586 | 4.70944 |
| 0.90 | 6.28155 | 77.309 | 424.42 | 14.0822 | 1.88823 | 2.62779 | 1.14867 | 5.30769 |
| 0.95 | 6.64485 | 176.980 | 1066.91 | 29.3575 | 2.24792 | 3.02813 | 1.46772 | 5.86257 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric | | Standard Deviation | CV |
|--------------------|---------|--------------------------------|-----------|----------|--------------------|---------|
| | | | Mean | LogMean | | |
| 0.16667 | 4.03258 | Ceriodaphnia affinis | 0.602 | -0.22013 | 0.05732 | 0.26040 |
| 0.83333 | 5.96742 | Chironomus plumosus | 42.720 | 1.63063 | 0.09665 | 0.05927 |
| 0.61111 | 5.28222 | Chironomus thummi | 12.991 | 1.11363 | 0.08018 | 0.07200 |
| 0.94444 | 6.59322 | Cyclocypris | 130.000 | 2.11394 | . | . |
| 0.50000 | 5.00000 | Daphnia magna | 1.574 | 0.19698 | 0.49977 | 2.53717 |
| 0.50000 | . | -->MOR | . | -1.51413 | . | . |
| 0.50000 | . | -->NOSIG -ITX | . | 0.00000 | . | . |
| 0.05556 | 3.40678 | Daphnia pulex | 0.435 | -0.36111 | 0.58764 | 1.62732 |
| 0.27778 | 4.41054 | Gammarus pseudolimnaeus | 0.671 | -0.17336 | 0.86959 | 5.01619 |
| 0.27778 | . | -->NR-LETH -MOR | . | 0.86273 | 2.06916 | . |
| 0.38889 | 4.71778 | Hyalella azteca (Tolerant) | 0.940 | -0.02687 | . | . |
| 0.72222 | 5.58946 | Paratanytarsus parthenogenetic | 20.000 | 1.30103 | . | . |

Zinc SSD for Arthropods - in moderately hard water at T>15C over moderate (1-3 days) exposure



Species Sensitivity Distribution (SSD 165) data for arthropod species exposed to zinc in moderately hard water at T>15C over moderate (1-3 days) exposure

Model Parameters

| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
|-------------|---------|-----------|-----------|------------|---------|----|----------|
| 5 | 0.93669 | 4.70756 | 0.98977 | 0.31220 | 4.32585 | 3 | 0.013082 |

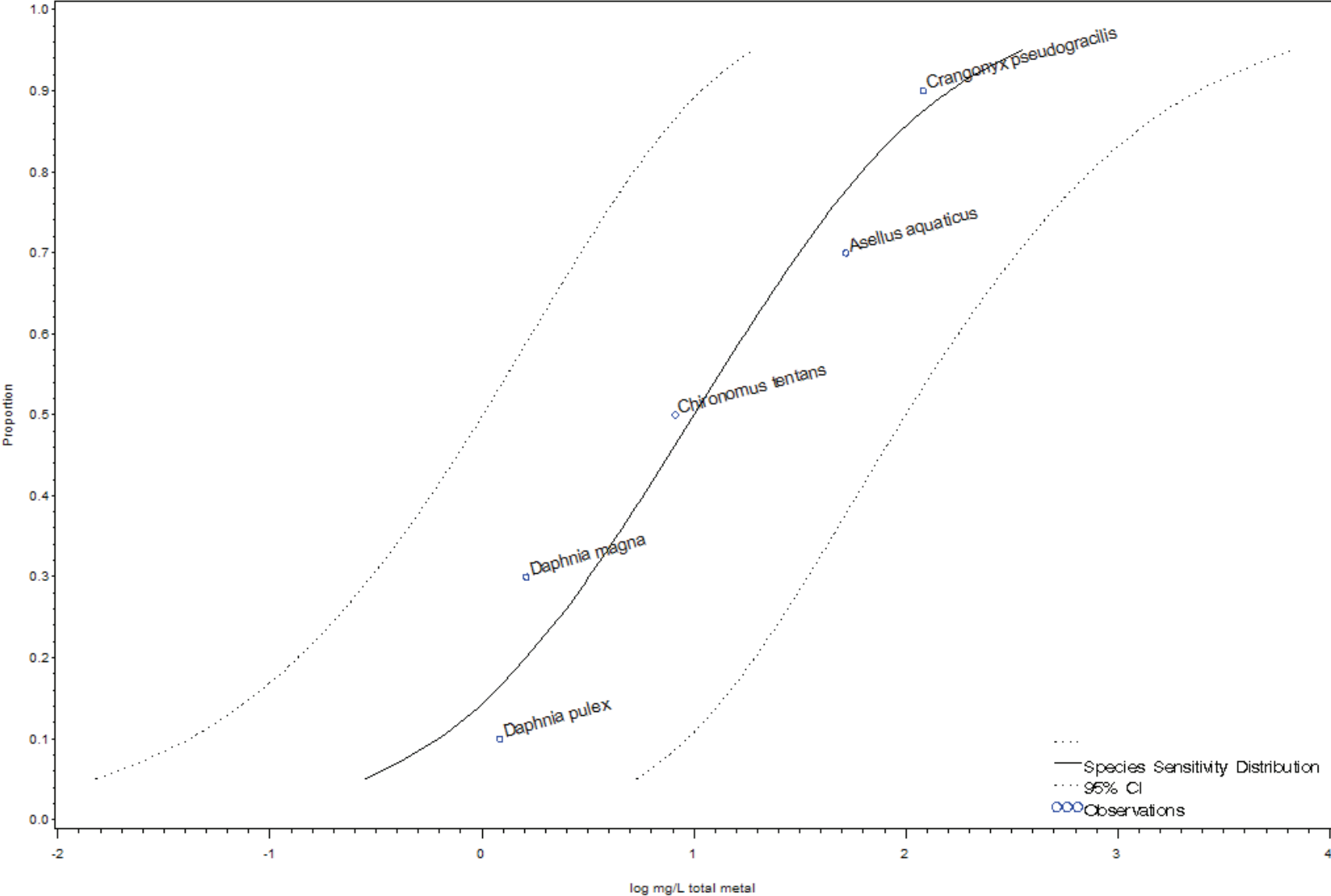
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.036 | 0.090 | 0.0144 | -1.44382 | -1.04638 | -1.84126 | 2.09666 |
| 0.10 | 3.71845 | 0.088 | 0.205 | 0.0377 | -1.05596 | -0.68877 | -1.42315 | 1.89975 |
| 0.20 | 4.15838 | 0.259 | 0.565 | 0.1189 | -0.58630 | -0.24791 | -0.92468 | 1.72086 |
| 0.25 | 4.32551 | 0.391 | 0.836 | 0.1828 | -0.40787 | -0.07773 | -0.73801 | 1.67106 |
| 0.30 | 4.47560 | 0.565 | 1.193 | 0.2680 | -0.24764 | 0.07652 | -0.57180 | 1.63531 |
| 0.50 | 5.00000 | 2.052 | 4.236 | 0.9941 | 0.31220 | 0.62699 | -0.00259 | 1.57999 |
| 0.75 | 5.67449 | 10.771 | 23.036 | 5.0366 | 1.03228 | 1.36242 | 0.70214 | 1.67106 |
| 0.90 | 6.28155 | 47.903 | 111.572 | 20.5673 | 1.68037 | 2.04755 | 1.31318 | 1.89975 |
| 0.95 | 6.64485 | 117.009 | 292.187 | 46.8577 | 2.06822 | 2.46566 | 1.67078 | 2.09666 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|---------------------|----------------|----------|--------------------|---------|
| 0.9 | 6.28155 | Asellus communis | 56.0000 | 1.74819 | 0.00000 | 0.00000 |
| 0.1 | 3.71845 | Ceriodaphnia dubia | 0.0862 | -1.06462 | 0.12725 | 0.11953 |
| 0.7 | 5.52440 | Chydorus sphaericus | 4.9600 | 0.69548 | . | . |
| 0.3 | 4.47560 | Daphnia magna | 0.6960 | -0.15739 | 0.25837 | 1.64160 |
| 0.5 | 5.00000 | Ranatra elongata | 2.1845 | 0.33935 | 0.07195 | 0.21203 |

Zinc SSD for Arthropods - in soft water at T<=15C over moderate (1-3 days) exposure



Species Sensitivity Distribution (SSD 166) data for arthropod species exposed to zinc in soft water at T<=15C over moderate (1-3 days) exposure

Model Parameters

| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
|-------------|---------|-----------|-----------|------------|---------|----|----------|
| 5 | 1.06195 | 3.93555 | 0.92774 | 1.00235 | 3.15464 | 3 | 0.092366 |

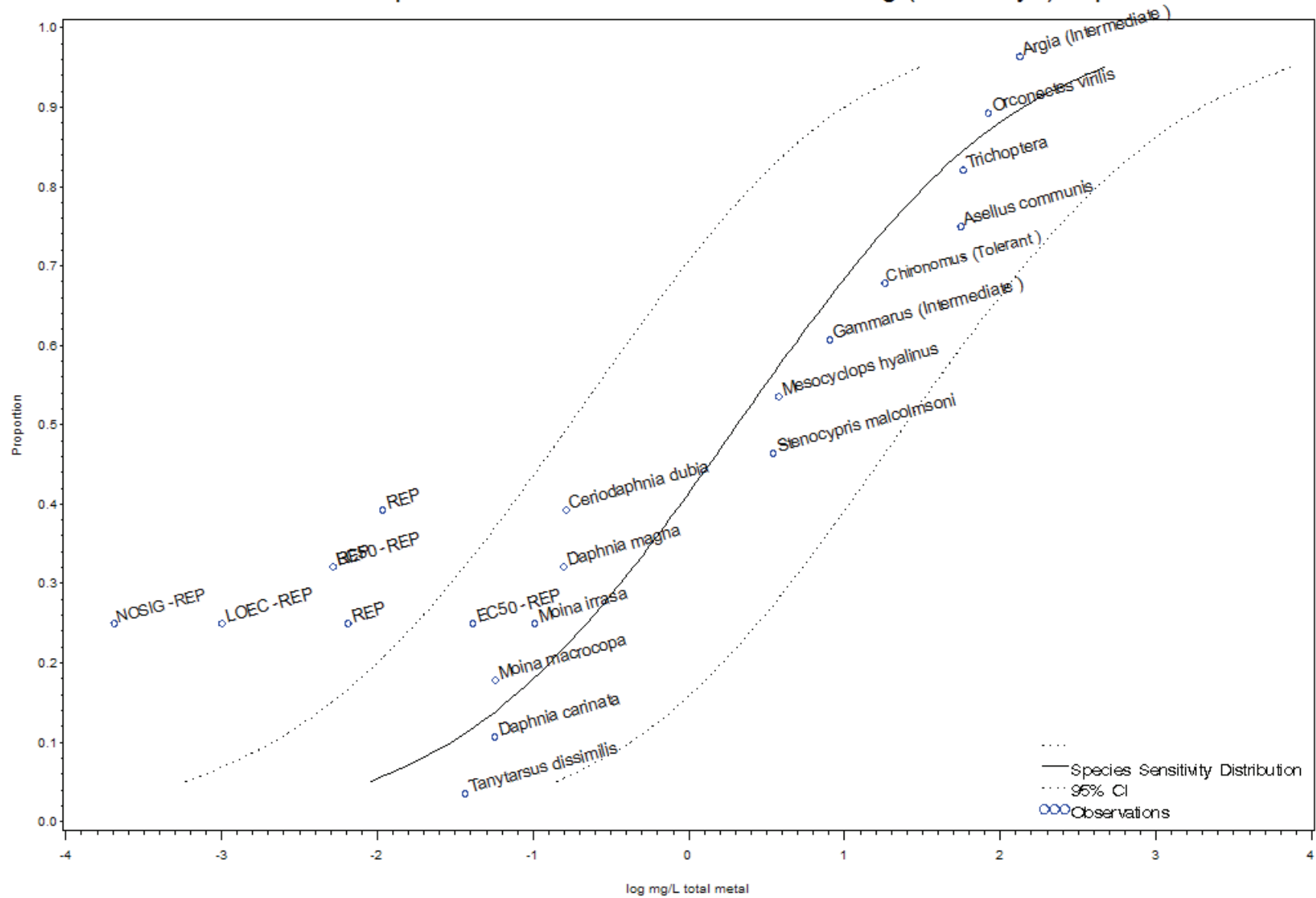
Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log Central Tendency | log UpperCI | log LowerCI | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|----------------------|-------------|-------------|--------------------|
| 0.05 | 3.35515 | 0.284 | 2.49 | 0.0324 | -0.54654 | 0.39648 | -1.48956 | 8.65636 |
| 0.10 | 3.71845 | 0.625 | 4.61 | 0.0846 | -0.20443 | 0.66374 | -1.07261 | 7.24656 |
| 0.20 | 4.15838 | 1.621 | 10.15 | 0.2589 | 0.20983 | 1.00647 | -0.58681 | 6.10124 |
| 0.25 | 4.32551 | 2.329 | 13.91 | 0.3900 | 0.36721 | 1.14331 | -0.40888 | 5.80425 |
| 0.30 | 4.47560 | 3.225 | 18.61 | 0.5589 | 0.50855 | 1.26972 | -0.25263 | 5.59667 |
| 0.50 | 5.00000 | 10.054 | 54.97 | 1.8390 | 1.00235 | 1.74014 | 0.26457 | 5.28453 |
| 0.75 | 5.67449 | 43.400 | 259.17 | 7.2677 | 1.63749 | 2.41359 | 0.86139 | 5.80425 |
| 0.90 | 6.28155 | 161.860 | 1194.85 | 21.9262 | 2.20914 | 3.07731 | 1.34096 | 7.24656 |
| 0.95 | 6.64485 | 355.833 | 3120.79 | 40.5721 | 2.55125 | 3.49426 | 1.60823 | 8.65636 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|--------------------------|----------------|---------|--------------------|---------|
| 0.7 | 5.52440 | Asellus aquaticus | 52.300 | 1.71850 | . | . |
| 0.5 | 5.00000 | Chironomus tentans | 8.200 | 0.91381 | . | . |
| 0.9 | 6.28155 | Crangonyx pseudogracilis | 121.000 | 2.08279 | . | . |
| 0.3 | 4.47560 | Daphnia magna | 1.626 | 0.21119 | 0.16103 | 0.76251 |
| 0.1 | 3.71845 | Daphnia pulex | 1.218 | 0.08548 | 0.11562 | 1.35271 |

Zinc SSD for Arthropods - in soft water at T>15C over long (3-30 days) exposure



Species Sensitivity Distribution (SSD 167) data for arthropod species exposed to zinc in soft water at T>15C over long (3-30 days) exposure

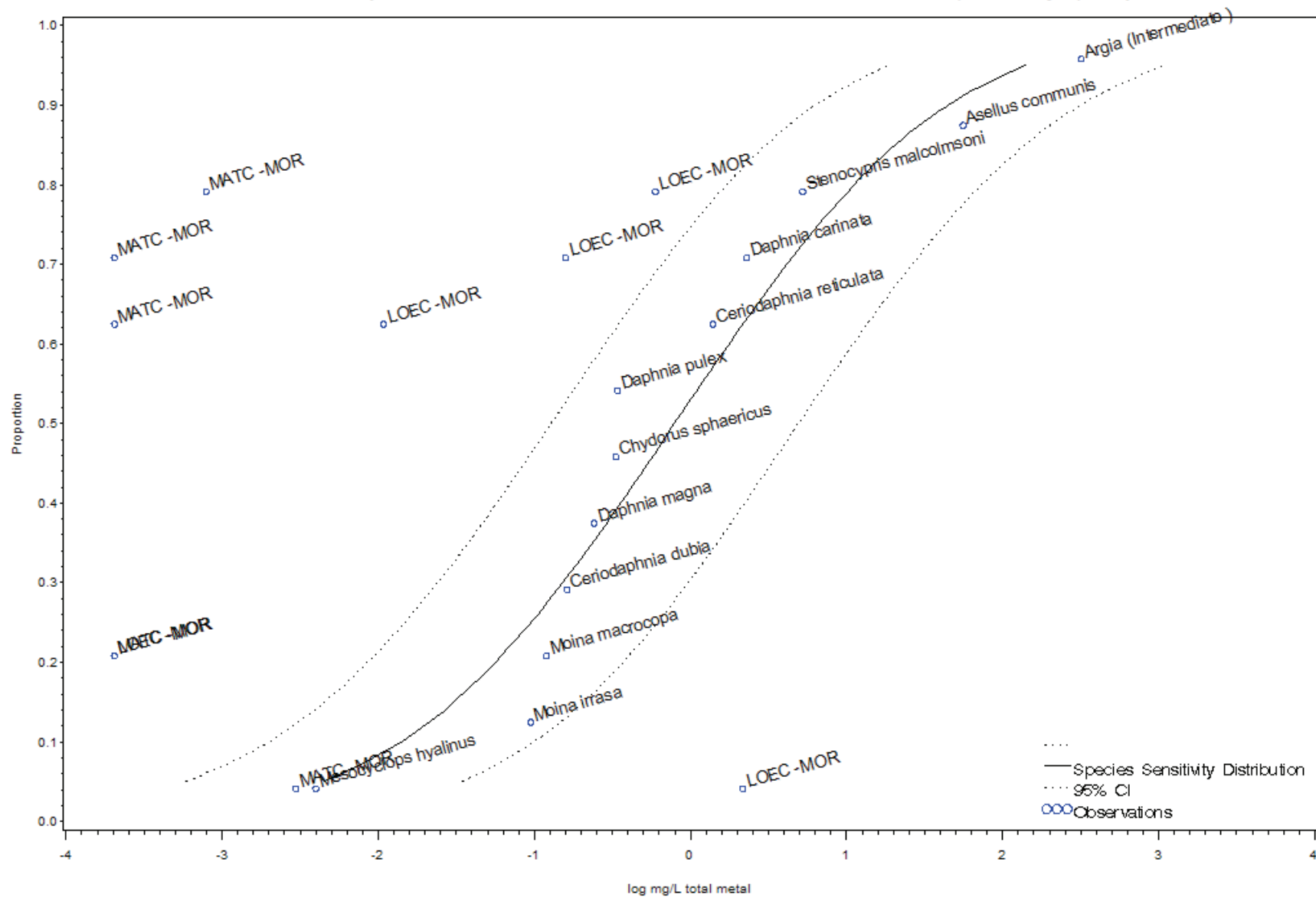
| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|---------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 14 | 0.69848 | 4.78230 | 0.89537 | 0.31168 | 23.4614 | 12 | 0.11147 |

Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log | | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|------------------|-------------|--------------------|
| | | | | | Central Tendency | log UpperCI | |
| 0.05 | 3.35515 | 0.009 | 0.09 | 0.0010 | -2.04322 | -1.06898 | 9.31803 |
| 0.10 | 3.71845 | 0.030 | 0.26 | 0.0035 | -1.52309 | -0.58408 | 8.57468 |
| 0.20 | 4.15838 | 0.128 | 1.03 | 0.0158 | -0.89325 | 0.01367 | 7.94704 |
| 0.25 | 4.32551 | 0.222 | 1.75 | 0.0281 | -0.65397 | 0.24405 | 7.78074 |
| 0.30 | 4.47560 | 0.364 | 2.83 | 0.0467 | -0.43910 | 0.45255 | 7.66365 |
| 0.50 | 5.00000 | 2.050 | 15.61 | 0.2691 | 0.31168 | 1.19349 | 7.48629 |
| 0.75 | 5.67449 | 18.938 | 149.74 | 2.3950 | 1.27733 | 2.17535 | 7.78074 |
| 0.90 | 6.28155 | 140.101 | 1217.44 | 16.1225 | 2.14644 | 3.08545 | 8.57468 |
| 0.95 | 6.64485 | 464.057 | 4373.34 | 49.2413 | 2.66657 | 3.64081 | 9.31803 |

| Proportion Species | PROBIT | taxa | Data Summary | | | |
|-----------------------|---------|--------------------------|-------------------|----------|-----------------------|----------|
| | | | Geometric Mean | LogMean | Standard Deviation | CV |
| 0.96429 | 6.80274 | Argia (Intermediate) | 134.164 | 2.12764 | 0.18050 | 0.084838 |
| 0.75000 | 5.67449 | Asellus communis | 56.000 | 1.74819 | . | . |
| 0.39286 | 4.72812 | Ceriodaphnia dubia | 0.164 | -0.78557 | 0.04104 | 0.052249 |
| 0.39286 | . | -->REP | . | -1.96611 | . | . |
| 0.67857 | 5.46371 | Chironomus (Tolerant) | 18.200 | 1.26007 | . | . |
| 0.10714 | 3.75813 | Daphnia carinata | 0.057 | -1.24413 | . | . |
| 0.32143 | 4.53629 | Daphnia magna | 0.158 | -0.80134 | . | . |
| 0.32143 | . | -->EC50 -REP | . | -2.28278 | . | . |
| 0.32143 | . | -->REP | . | -2.28383 | 0.45235 | . |
| 0.60714 | 5.27188 | Gammarus (Intermediate) | 8.100 | 0.90849 | . | . |
| 0.53571 | 5.08964 | Mesocyclops hyalinus | 3.800 | 0.57978 | . | . |
| 0.25000 | 4.32551 | Moina irrasa | 0.103 | -0.98771 | . | . |
| 0.25000 | . | -->EC50 -REP | . | -1.38709 | . | . |
| 0.25000 | . | -->LOEC -REP | . | -2.99573 | . | . |
| 0.25000 | . | -->NOSIG -REP | . | -3.68888 | . | . |
| 0.25000 | . | -->REP | . | -2.18480 | . | . |
| 0.17857 | 4.07918 | Moina macrocopa | 0.058 | -1.24033 | . | . |
| 0.89286 | 6.24187 | Orconectes virilis | 84.000 | 1.92428 | . | . |
| 0.46429 | 4.91036 | Stenocypris malcolmsoni | 3.500 | 0.54407 | . | . |
| 0.03571 | 3.19726 | Tanytarsus dissimilis | 0.037 | -1.43415 | . | . |
| 0.82143 | 5.92082 | Trichoptera | 58.100 | 1.76418 | . | . |

Zinc SSD for Arthropods - in soft water at T>15C over moderate (1-3 days) exposure



Species Sensitivity Distribution (SSD 168) data for arthropod species exposed to zinc in soft water at T>15C over moderate (1-3 days) exposure

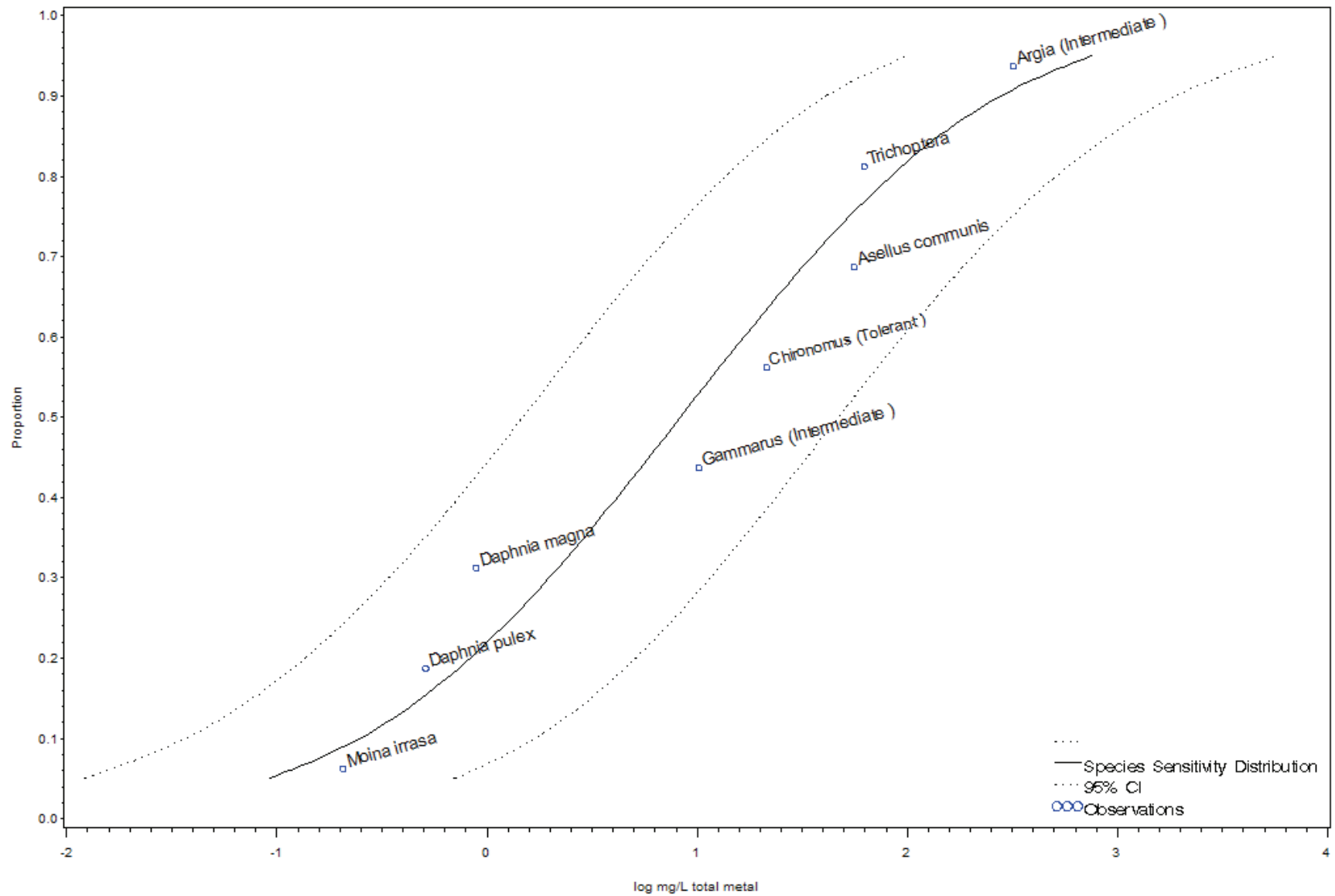
| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|----------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 12 | 0.73203 | 5.07349 | 0.94205 | -0.10039 | 18.9687 | 10 | 0.062527 |

Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log | | | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|------------------|-------------|-------------|--------------------|
| | | | | | Central Tendency | log UpperCI | log LowerCI | |
| 0.05 | 3.35515 | 0.004 | 0.024 | 0.0009 | -2.34736 | -1.62815 | -3.06658 | 5.04772 |
| 0.10 | 3.71845 | 0.014 | 0.069 | 0.0029 | -1.85107 | -1.16029 | -2.54185 | 4.70282 |
| 0.20 | 4.15838 | 0.056 | 0.260 | 0.0122 | -1.25010 | -0.58530 | -1.91490 | 4.40530 |
| 0.25 | 4.32551 | 0.095 | 0.432 | 0.0209 | -1.02179 | -0.36421 | -1.67936 | 4.32542 |
| 0.30 | 4.47560 | 0.152 | 0.685 | 0.0340 | -0.81675 | -0.16436 | -1.46915 | 4.26888 |
| 0.50 | 5.00000 | 0.794 | 3.499 | 0.1800 | -0.10039 | 0.54401 | -0.74479 | 4.18280 |
| 0.75 | 5.67449 | 6.622 | 30.101 | 1.4569 | 0.82100 | 1.47858 | 0.16343 | 4.32542 |
| 0.90 | 6.28155 | 44.698 | 219.315 | 9.1097 | 1.65029 | 2.34107 | 0.95950 | 4.70282 |
| 0.95 | 6.64485 | 140.146 | 734.169 | 26.7524 | 2.14658 | 2.86580 | 1.42736 | 5.04772 |

| Data Summary | | | | | | | |
|-----------------------|---------|-------------------------|-------------------|----------|-----------------------|---------|--|
| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV | |
| 0.95833 | 6.73166 | Argia (Intermediate) | 320.000 | 2.50515 | 0.00000 | 0.00000 | |
| 0.87500 | 6.15035 | Asellus communis | 56.000 | 1.74819 | 0.00000 | 0.00000 | |
| 0.29167 | 4.45148 | Ceriodaphnia dubia | 0.163 | -0.78781 | . | . | |
| 0.62500 | 5.31864 | Ceriodaphnia reticulata | 1.400 | 0.14613 | . | . | |
| 0.62500 | . | -->LOEC -MOR | . | -1.96611 | . | . | |
| 0.62500 | . | -->MATC -MOR | . | -3.68888 | . | . | |
| 0.45833 | 4.89537 | Chydorus sphaericus | 0.334 | -0.47671 | 0.16994 | 0.35648 | |
| 0.70833 | 5.54852 | Daphnia carinata | 2.300 | 0.36173 | . | . | |
| 0.70833 | . | -->LOEC -MOR | . | -0.79851 | . | . | |
| 0.70833 | . | -->MATC -MOR | . | -3.68888 | . | . | |
| 0.37500 | 4.68136 | Daphnia magna | 0.243 | -0.61474 | 0.25152 | 0.40916 | |
| 0.54167 | 5.10463 | Daphnia pulex | 0.343 | -0.46478 | 0.13040 | 0.28057 | |
| 0.04167 | 3.26834 | Mesocyclops hyalinus | 0.004 | -2.39794 | . | . | |
| 0.04167 | . | -->LOEC -MOR | . | 0.33647 | . | . | |
| 0.04167 | . | -->MATC -MOR | . | -2.52573 | . | . | |
| 0.12500 | 3.84965 | Moina irrasa | 0.095 | -1.02325 | 0.28700 | 0.28048 | |
| 0.20833 | 4.18778 | Moina macrocopa | 0.120 | -0.92082 | . | . | |
| 0.20833 | . | -->LOEC -MOR | . | -3.68888 | . | . | |
| 0.20833 | . | -->MATC -MOR | . | -3.68888 | . | . | |
| 0.79167 | 5.81222 | Stenocypris malcolmsoni | 5.250 | 0.72016 | . | . | |
| 0.79167 | . | -->LOEC -MOR | . | -0.22314 | . | . | |
| 0.79167 | . | -->MATC -MOR | . | -3.10109 | . | . | |

Zinc SSD for Arthropods - in soft water at T>15C over short (<=1 day) exposure



Species Sensitivity Distribution (SSD 169) data for arthropod species exposed to zinc in soft water at T>15C over short (<=1 day) exposure

| Model Parameters | | | | | | | |
|------------------|---------|-----------|-----------|------------|---------|----|----------|
| Num Species | Slope | Intercept | R_squared | Grand Mean | CorrSSQ | DF | MSE |
| 8 | 0.84084 | 4.22595 | 0.94790 | 0.92057 | 9.12820 | 6 | 0.059115 |

Predicted Values

| Proportion Species | Probt | Central Tendency | UpperCI | LowerCI | log | | | Relative CIBreadth |
|--------------------|---------|------------------|---------|---------|------------------|-------------|-------------|--------------------|
| | | | | | Central Tendency | log UpperCI | log LowerCI | |
| 0.05 | 3.35515 | 0.092 | 0.46 | 0.018 | -1.03564 | -0.33740 | -1.73387 | 4.79122 |
| 0.10 | 3.71845 | 0.249 | 1.14 | 0.055 | -0.60356 | 0.05638 | -1.26351 | 4.35147 |
| 0.20 | 4.15838 | 0.831 | 3.50 | 0.197 | -0.08036 | 0.54400 | -0.70472 | 3.97331 |
| 0.25 | 4.32551 | 1.313 | 5.40 | 0.319 | 0.11841 | 0.73276 | -0.49595 | 3.87186 |
| 0.30 | 4.47560 | 1.981 | 8.02 | 0.490 | 0.29691 | 0.90406 | -0.31024 | 3.80008 |
| 0.50 | 5.00000 | 8.329 | 32.85 | 2.112 | 0.92057 | 1.51654 | 0.32460 | 3.69076 |
| 0.75 | 5.67449 | 52.812 | 217.32 | 12.834 | 1.72273 | 2.33709 | 1.10838 | 3.87186 |
| 0.90 | 6.28155 | 278.424 | 1272.47 | 60.921 | 2.44471 | 3.10465 | 1.78476 | 4.35147 |
| 0.95 | 6.64485 | 752.969 | 3758.49 | 150.848 | 2.87678 | 3.57501 | 2.17854 | 4.79122 |

Data Summary

| Proportion Species | PROBIT | taxa | Geometric Mean | LogMean | Standard Deviation | CV |
|--------------------|---------|--------------------------|----------------|----------|--------------------|---------|
| 0.9375 | 6.53412 | Argia (Intermediate) | 320.000 | 2.50515 | . | . |
| 0.6875 | 5.48878 | Asellus communis | 56.000 | 1.74819 | . | . |
| 0.5625 | 5.15731 | Chironomus (Tolerant) | 21.500 | 1.33244 | . | . |
| 0.3125 | 4.51122 | Daphnia magna | 0.889 | -0.05119 | 0.07239 | 1.41421 |
| 0.1875 | 4.11285 | Daphnia pulex | 0.512 | -0.29088 | 0.13249 | 0.45550 |
| 0.4375 | 4.84269 | Gammarus (Intermediate) | 10.200 | 1.00860 | . | . |
| 0.0625 | 3.46588 | Moina irrasa | 0.207 | -0.68432 | 0.24731 | 0.36140 |
| 0.8125 | 5.88715 | Trichoptera | 62.600 | 1.79657 | . | . |