logsize\_means

## log\_size prob SE df asymp.LCL asymp.UCL  
## 2.00 0.6674290 0.12901343 Inf 0.3911208 0.8624468  
## 2.25 0.6304307 0.12298826 Inf 0.3774116 0.8275952  
## 2.50 0.5918335 0.11480119 Inf 0.3635716 0.7863388  
## 2.75 0.5520694 0.10474634 Inf 0.3495167 0.7387024  
## 3.00 0.5116281 0.09327706 Inf 0.3351121 0.6852910  
## 3.25 0.4710340 0.08099580 Inf 0.3201402 0.6274143  
## 3.50 0.4308195 0.06864131 Inf 0.3042482 0.5671255  
## 3.75 0.3914972 0.05708172 Inf 0.2868667 0.5071507  
## 4.00 0.3535347 0.04730467 Inf 0.2671346 0.4506943  
## 4.25 0.3173337 0.04031882 Inf 0.2440075 0.4010067  
## 4.50 0.2832155 0.03677086 Inf 0.2169412 0.3604175  
## 4.75 0.2514147 0.03637329 Inf 0.1869621 0.3290927  
## 5.00 0.2220782 0.03795367 Inf 0.1565424 0.3051251  
## 5.25 0.1952720 0.04023195 Inf 0.1280948 0.2861184  
## 5.50 0.1709902 0.04233748 Inf 0.1030291 0.2702726  
## 5.75 0.1491682 0.04382450 Inf 0.0818166 0.2564764  
## 6.00 0.1296954 0.04452916 Inf 0.0643525 0.2440788  
## 6.25 0.1124287 0.04444813 Inf 0.0502502 0.2326950  
## 6.50 0.0972040 0.04366166 Inf 0.0390214 0.2220901  
## 6.75 0.0838463 0.04228777 Inf 0.0301729 0.2121147  
## 7.00 0.0721774 0.04045559 Inf 0.0232543 0.2026700  
## 7.25 0.0620225 0.03829003 Inf 0.0178764 0.1936881  
## 7.50 0.0532144 0.03590369 Inf 0.0137150 0.1851205  
## 7.75 0.0455964 0.03339308 Inf 0.0105061 0.1769313  
## 8.00 0.0390240 0.03083765 Inf 0.0080382 0.1690929  
##   
## Results are averaged over the levels of: Fisheries, Epipelagic, Mesopelagic, Bathypelagic, Rep\_Strategy   
## Confidence level used: 0.95   
## Intervals are back-transformed from the logit scale

Brackish\_means

## BrackishFreshwater prob SE df asymp.LCL asymp.UCL  
## 0 0.31610096 0.03947029 Inf 0.24423523 0.3979776  
## 1 0.08597468 0.05341963 Inf 0.02421757 0.2628031  
##   
## Results are averaged over the levels of: Fisheries, Epipelagic, Mesopelagic, Bathypelagic, Rep\_Strategy   
## Confidence level used: 0.95   
## Intervals are back-transformed from the logit scale

benthicfish\_means

## Benthic Fisheries prob SE df asymp.LCL asymp.UCL  
## 0 0 0.2318397 0.05710313 Inf 0.1386679 0.3613509  
## 1 0 0.3581289 0.06299398 Inf 0.2458999 0.4884049  
## 0 1 0.2026310 0.06571267 Inf 0.1027472 0.3605920  
## 1 1 0.3119452 0.06305536 Inf 0.2031313 0.4463956  
##   
## Results are averaged over the levels of: Epipelagic, Mesopelagic, Bathypelagic, Rep\_Strategy   
## Confidence level used: 0.95   
## Intervals are back-transformed from the logit scale

pelagicfish\_means

## Pelagic Fisheries prob SE df asymp.LCL asymp.UCL  
## 0 0 0.3142605 0.05288666 Inf 0.22075431 0.4257346  
## 1 0 0.2431258 0.12574062 Inf 0.07763729 0.5507384  
## 0 1 0.2734332 0.05274805 Inf 0.18277453 0.3877251  
## 1 1 0.2139570 0.11262161 Inf 0.06826001 0.5028141  
##   
## Results are averaged over the levels of: Epipelagic, Mesopelagic, Bathypelagic, Rep\_Strategy   
## Confidence level used: 0.95   
## Intervals are back-transformed from the logit scale

coastalfish\_means

## Coastal Fisheries prob SE df asymp.LCL asymp.UCL  
## 0 0 0.3140109 0.06325307 Inf 0.2047342 0.4487050  
## 1 0 0.3044296 0.05961754 Inf 0.2013130 0.4318085  
## 0 1 0.4134182 0.09823672 Inf 0.2416194 0.6092396  
## 1 1 0.1893117 0.04721202 Inf 0.1133046 0.2991067  
##   
## Results are averaged over the levels of: Epipelagic, Mesopelagic, Bathypelagic, Rep\_Strategy   
## Confidence level used: 0.95   
## Intervals are back-transformed from the logit scale

dwfish\_means

## Deepwater Fisheries prob SE df asymp.LCL asymp.UCL  
## 0 0 0.2932367 0.06905657 Inf 0.1775863 0.4435803  
## 1 0 0.2889743 0.06471146 Inf 0.1798072 0.4296971  
## 0 1 0.1888600 0.05556858 Inf 0.1026254 0.3215887  
## 1 1 0.3207937 0.08236259 Inf 0.1837700 0.4976895  
##   
## Results are averaged over the levels of: Benthic, Epipelagic, Mesopelagic, Bathypelagic, Rep\_Strategy   
## Confidence level used: 0.95   
## Intervals are back-transformed from the logit scale

coastalbenthic\_means

## Coastal Benthic prob SE df asymp.LCL asymp.UCL  
## 0 0 0.1806850 0.05590732 Inf 0.0951853 0.3161499  
## 1 0 0.2448641 0.05737978 Inf 0.1500245 0.3733247  
## 0 1 0.4946985 0.06942011 Inf 0.3622731 0.6278719  
## 1 1 0.2407522 0.04799110 Inf 0.1593406 0.3466092  
##   
## Results are averaged over the levels of: Fisheries, Epipelagic, Mesopelagic, Bathypelagic, Rep\_Strategy   
## Confidence level used: 0.95   
## Intervals are back-transformed from the logit scale

dwbenthic\_means

## Deepwater Benthic prob SE df asymp.LCL asymp.UCL  
## 0 0 0.1731760 0.05209927 Inf 0.09309394 0.2994042  
## 1 0 0.2613188 0.06792392 Inf 0.15074135 0.4135152  
## 0 1 0.3156432 0.06405820 Inf 0.20503929 0.4519878  
## 1 1 0.3517463 0.06541837 Inf 0.23619068 0.4877361  
##   
## Results are averaged over the levels of: Fisheries, Epipelagic, Mesopelagic, Bathypelagic, Rep\_Strategy   
## Confidence level used: 0.95   
## Intervals are back-transformed from the logit scale

Atlantic\_means

## Atlantic prob SE df asymp.LCL asymp.UCL  
## 0 0.267643 0.04242288 Inf 0.192972 0.3583770  
## 1 0.330480 0.05770038 Inf 0.228442 0.4514285  
##   
## Results are averaged over the levels of: Fisheries, Epipelagic, Mesopelagic, Bathypelagic, Rep\_Strategy   
## Confidence level used: 0.95   
## Intervals are back-transformed from the logit scale

Pacific\_means

## Pacific prob SE df asymp.LCL asymp.UCL  
## 0 0.2660970 0.04852623 Inf 0.1821967 0.3711009  
## 1 0.3037474 0.04350285 Inf 0.2257120 0.3949988  
##   
## Results are averaged over the levels of: Fisheries, Epipelagic, Mesopelagic, Bathypelagic, Rep\_Strategy   
## Confidence level used: 0.95   
## Intervals are back-transformed from the logit scale

Indian\_means

## Indian prob SE df asymp.LCL asymp.UCL  
## 0 0.3694258 0.04882768 Inf 0.2797906 0.4690741  
## 1 0.1806842 0.03579885 Inf 0.1207143 0.2615835  
##   
## Results are averaged over the levels of: Fisheries, Epipelagic, Mesopelagic, Bathypelagic, Rep\_Strategy   
## Confidence level used: 0.95   
## Intervals are back-transformed from the logit scale

bathy\_means

## Bathypelagic prob SE df asymp.LCL asymp.UCL  
## 0 0.3774291 0.03476129 Inf 0.3120779 0.4475618  
## 1 0.2124945 0.05133077 Inf 0.1288504 0.3298759  
##   
## Results are averaged over the levels of: Fisheries, Epipelagic, Mesopelagic, Rep\_Strategy   
## Confidence level used: 0.95   
## Intervals are back-transformed from the logit scale

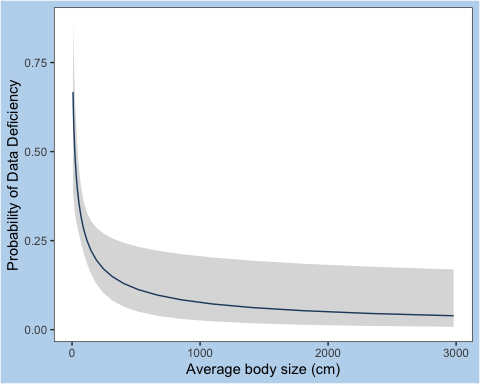
meso\_means

## Mesopelagic prob SE df asymp.LCL asymp.UCL  
## 0 0.3106962 0.05444436 Inf 0.2149867 0.4258977  
## 1 0.2662832 0.04434406 Inf 0.1887106 0.3615334  
##   
## Results are averaged over the levels of: Fisheries, Epipelagic, Bathypelagic, Rep\_Strategy   
## Confidence level used: 0.95   
## Intervals are back-transformed from the logit scale

epipelagic\_means

## Epipelagic prob SE df asymp.LCL asymp.UCL  
## 0 0.3424214 0.04872345 Inf 0.2541441 0.4431437  
## 1 0.2390478 0.04013945 Inf 0.1693279 0.3262016  
##   
## Results are averaged over the levels of: Fisheries, Mesopelagic, Bathypelagic, Rep\_Strategy   
## Confidence level used: 0.95   
## Intervals are back-transformed from the logit scale

# Plotting the size figure  
data.frame(logsize\_means) %>%  
 ggplot(aes(x = exp(log\_size), # Exponentiating log size  
 y = prob)) + geom\_line(color="#1F4E79")+  
 geom\_ribbon(aes(ymin = asymp.LCL,  
 ymax = asymp.UCL),  
 alpha = .2) + theme\_bw() + theme(panel.grid.major = element\_blank(), panel.grid.minor = element\_blank()) + theme(plot.background=element\_rect(fill = "#BDD7EE"),  
 panel.background = element\_rect(fill = "white"))+  
xlab("Average body size (cm)") +  
 ylab("Probability of Data Deficiency")



### try with new color  
data.frame(logsize\_means) %>%  
 ggplot(aes(x = exp(log\_size), # Exponentiating log size  
 y = prob)) + geom\_line(color="#1F4E79")+  
 geom\_ribbon(aes(ymin = asymp.LCL,  
 ymax = asymp.UCL),  
 alpha = .2) + theme\_bw() + theme(panel.grid.major = element\_blank(), panel.grid.minor = element\_blank()) + theme(plot.background=element\_rect(fill = "#EDD58B"),  
 panel.background = element\_rect(fill = "white"))+   
xlab(" ") +  
 ylab(" ")

