

**J. M. Hoenig, M. W. Smith, M. L. Groner, W. K. Vogelbein, D. M. Taylor, D. F. Landers Jr., D.T. Gauthier, P. Sadler, M. Matsche, A. Haines, H. J. Small, R. Pradel, R. Choquet, and J. D. Shields. 2017. Impact of disease on the survival of three commercially fished species. *Ecological Applications***

---

## **Data S1**

**R code to estimate the effects of disease on the survival of three species:**

- 1) Snow crab with bitter crab disease**
  - 2) Striped bass with dermal mycobacteriosis**
  - 3) American lobster with epizootic shell disease**
- 

## **Author(s)**

Maya Groner  
Virginia Institute of Marine Science  
1375 Greate Rd  
Gloucester Point, VA 23062  
[mlgroner@vims.edu](mailto:mlgroner@vims.edu)

Matthew Smith  
NOAA  
matthew.w.smith@noaa.gov

---

## **File list (files found within DataS1.zip)**

```
Crab BCD logistic regression.R  
Striped bass mycobacteria logistic regression.R  
Lobster ESD logistic regression.R
```

## **Description**

- 1) Crab BCD logistic regression: Calculates the relative survival of snow crabs with bitter crab disease relative to healthy crabs and graphs results. Requires dataset 'BCD Crab.csv' available in dryad. Originally run in R (v3.3.1).
- 2) Striped bass mycobacteria logistic regression: Calculates the relative survival of striped bass with dermal mycobacteriosis at 3 levels of severity and graphs results Also,

calculates the average yearly prevalence of mycobacteriosis in striped bass and weighted survival for the population. Requires datasets 'MD\_Stripedbass.csv' and 'VA\_Striped bass.csv' available in dryad. Originally run in R (v3.3.1).

- 3) Lobsters ESD logistic regression: Calculates the survival of male, non-ovigerous female and ovigerous female American lobsters with epizootic shell disease relative to healthy lobsters. Graphs relative survivals. Requires dataset 'lobster recaps 1999-2015.txt' available in dryad. Originally run in R (v3.3.1).
-