PRUEBA SALIDAS

María José Zúñiga

xxx

Contents

1 Librerías requeridas **1**

2 Directorios de trabajo **2**

3 Funciones utilizadas **2**

4 Función `CrearRdata` **2**

5 Función `Fn_Tablas` **2**
5.1 `tb1` 2
5.2 `tb2` 2

6 Función `Fn_Figuras` **3**
6.1 `fig1.0` 3
6.2 `fig2.0` 5
6.3 `fig3.0` 6
6.4 `fig4.0` 7
6.5 `fig5.0` 7

7 Función `Fn_Data.frame` **8**
7.1 `indobs_Fig1` y `indpred_Fig1` 8
7.2 `fig1` 8
7.3 `resind_Fig2` y `fig2` 9

1 Librerías requeridas

```
library(stringr) # para arreglo de archivo .dat
library(tidyverse)
library(kableExtra) # genera tablas
library(ggplot2) # genera figuras
library(ggthemes) # para ggplot
library(patchwork) # para unir gráficos de ggplot
library(dplyr)  # para usar melt
library(reshape) # para usar melt
library(here)
```

2 Directorios de trabajo

```
dir.0   <- here()
dir.1   <- paste(dir.0,"/codigos_admb",sep="")
dir.fun <- paste(dir.0,"/funciones/",sep="")
dir.Rdata<-paste(dir.0,"/Rdata/",sep="")
```

3 Funciones utilizadas

```
source(paste(dir.fun,"functions.R",sep=""))
source(paste(dir.fun,"Fn_CrearRdata.R",sep=""))
source(paste(dir.fun,"Fn_Data.frame.R",sep=""))
source(paste(dir.fun,"Fn_Figuras.R",sep=""))
source(paste(dir.fun,"Fn_Tablas.R",sep=""))
```

4 Función `CrearRdata`

```
setwd(dir.1)

admb_dat  <- list.files(pattern=".dat")
admb_rep  <- list.files(pattern=".rep")
admb_std  <- list.files(pattern=".std")

CreaRdata(admb_dat[3],admb_rep[3],admb_std[3],'Hito1',dir.Rdata)
CreaRdata(admb_dat[1],admb_rep[1],admb_std[1],'Hito2',dir.Rdata)
CreaRdata(admb_dat[2],admb_rep[2],admb_std[2],'Hito3',dir.Rdata)
```

5 Función `Fn_Tablas`

5.1 `tb1`

```
tb1('DatosHito2.RData')
```

5.2 `tb2`

```
yearsb  <- c("1996/97","1997/98","1998/99","1999/00","2000/01","2001/02","2002/03",
             "2003/04","2004/05","2005/06","2006/07","2007/08","2008/09","2009/10",
             "2010/11","2011/12","2012/13","2013/14","2014/15","2015/16","2016/17",
             "2017/18","2018/19","2019/20",'2020/21','2021/22','2022/23')

bioyear<-yearsb
desemYdesc_previo<-c(350755,77701,442110,56441,14545,235359,
                     269955,359681,431902,328805,639364,411747,
                     362871,311530,167758,66681,60226,58785,
                     57116,71774,51957,67425,138520,160799,209506,203330,NA)

desc_previo       <- c(rep(1,4),rep(1.04,15),rep(1.02,1),rep(1.06,1),1.01,rep(1.02,5))
desembarque       <- desemYdesc_previo/desc_previo
desc_actualizado  <- c(rep(1,4),rep(1.04,17),1.014,1.021,1.018,1.02,1.02,1.02)
```

Table 1: Estimaciones de biomasas utilizadas en la evaluación de stock de anchoveta provenientes de los cruceros de Verano (RECLAS), Otoño (PELACES) y crucero de huevos (MPDH).

Año calendario	Biomasa crucero de verano (toneladas)	Biomasa crucero de otoño (toneladas)	Biomasa desovante MPDH (toneladas)
1.997	0	0	0
1.998	0	0	0
1.999	0	0	0
2.000	370.054	0	0
2.001	412.103	0	0
2.002	1.494.270	0	112.323
2.003	250.295	0	0
2.004	1.289.820	0	153.150
2.005	931.140	0	637.223
2.006	785.840	2.062.540	0
2.007	897.777	1.500.000	255.016
2.008	1.040.060	0	313.432
2.009	184.774	1.874.560	73.983
2.010	17.550	323.000	77.613
2.011	25.797	250.000	109.348
2.012	100.020	174.000	50.772
2.013	73.551	83.755	17.779
2.014	82.996	137.374	17.303
2.015	120.727	0	59.886
2.016	218.422	501.740	28.197
2.017	84.188	490.994	0
2.018	347.160	745.055	207.744
2.019	605.670	786.931	136.588
2.020	569.463	1.005.240	643.089
2.021	516.374	1.338.010	65.757
2.022	1.084.160	1.417.890	0
2.023	1.084.160	0	0

```
CapturaDescartada <- -(1-desc_actualizado)*desembarque
CapturaTotal      <- desembarque+CapturaDescartada

porcDesc_actualizado<-c(rep("0\\%",4),rep("4\\%",17),rep("1,4\\%",1),rep("2,1\\%",1),rep("1,8\\%",1),rep


tb2(bioyear,desembarque,porcDesc_actualizado,CapturaDescartada,CapturaTotal)
```

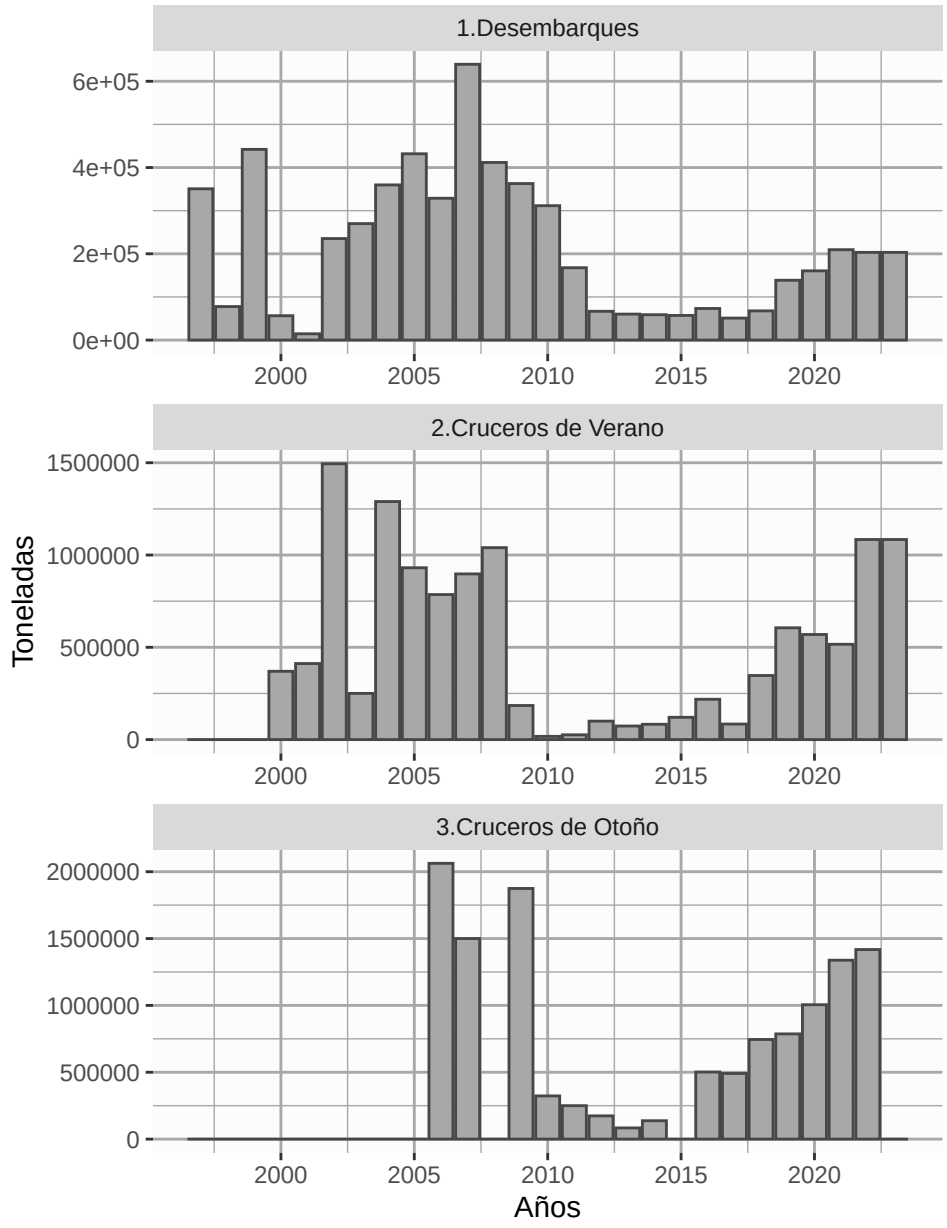
6 Función `Fn_Figuras`

6.1 `fig1.0`

Table 2: Desembarques en toneladas, porcentaje de descarte supuesto, captura descartada (toneladas) y captura total (toneladas) estimadas en año biológico para anchoveta de las regiones de Valparaíso a Los Lagos.

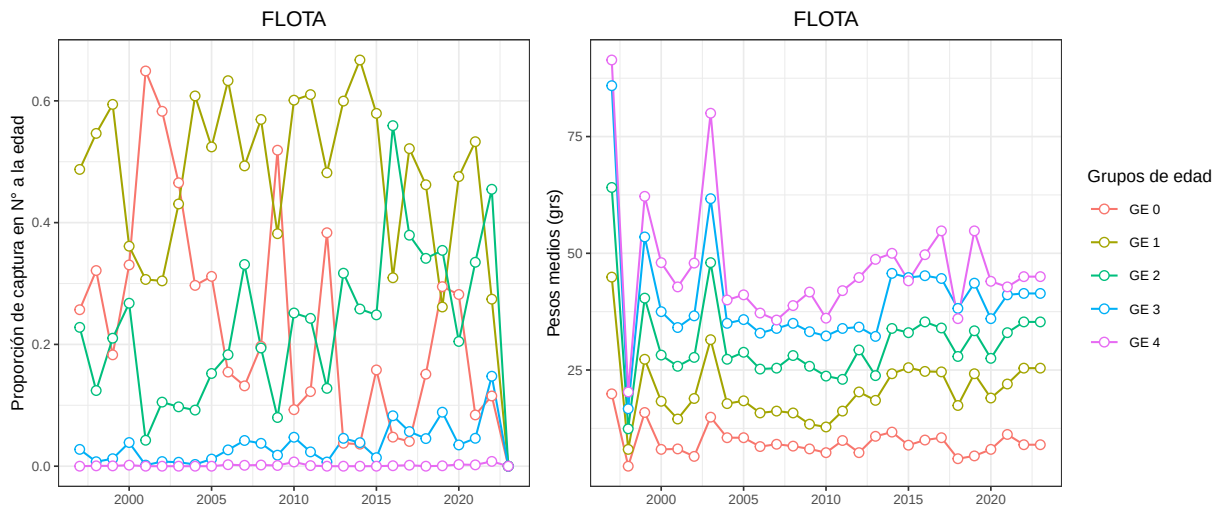
Año biológico	Desembarques (toneladas)	Porcentaje Descarte	Captura descartada (toneladas)	Captura total (toneladas)
1996/97	350.755	0%	0	350.755
1997/98	77.701	0%	0	77.701
1998/99	442.110	0%	0	442.110
1999/00	56.441	0%	0	56.441
2000/01	13.986	4%	559	14.545
2001/02	226.307	4%	9.052	235.359
2002/03	259.572	4%	10.383	269.955
2003/04	345.847	4%	13.834	359.681
2004/05	415.290	4%	16.612	431.902
2005/06	316.159	4%	12.646	328.805
2006/07	614.773	4%	24.591	639.364
2007/08	395.911	4%	15.836	411.747
2008/09	348.914	4%	13.957	362.871
2009/10	299.548	4%	11.982	311.530
2010/11	161.306	4%	6.452	167.758
2011/12	64.116	4%	2.565	66.681
2012/13	57.910	4%	2.316	60.226
2013/14	56.524	4%	2.261	58.785
2014/15	54.919	4%	2.197	57.116
2015/16	70.367	4%	2.815	73.181
2016/17	49.016	4%	1.961	50.977
2017/18	66.757	1,4%	935	67.692
2018/19	135.804	2,1%	2.852	138.656
2019/20	157.646	1,8%	2.838	160.484
2020/21	205.398	2%	4.108	209.506
2021/22	199.343	2%	3.987	203.330
2022/23	NA	2%	NA	NA

```
fig1.0('DatosHito2.RData')
```



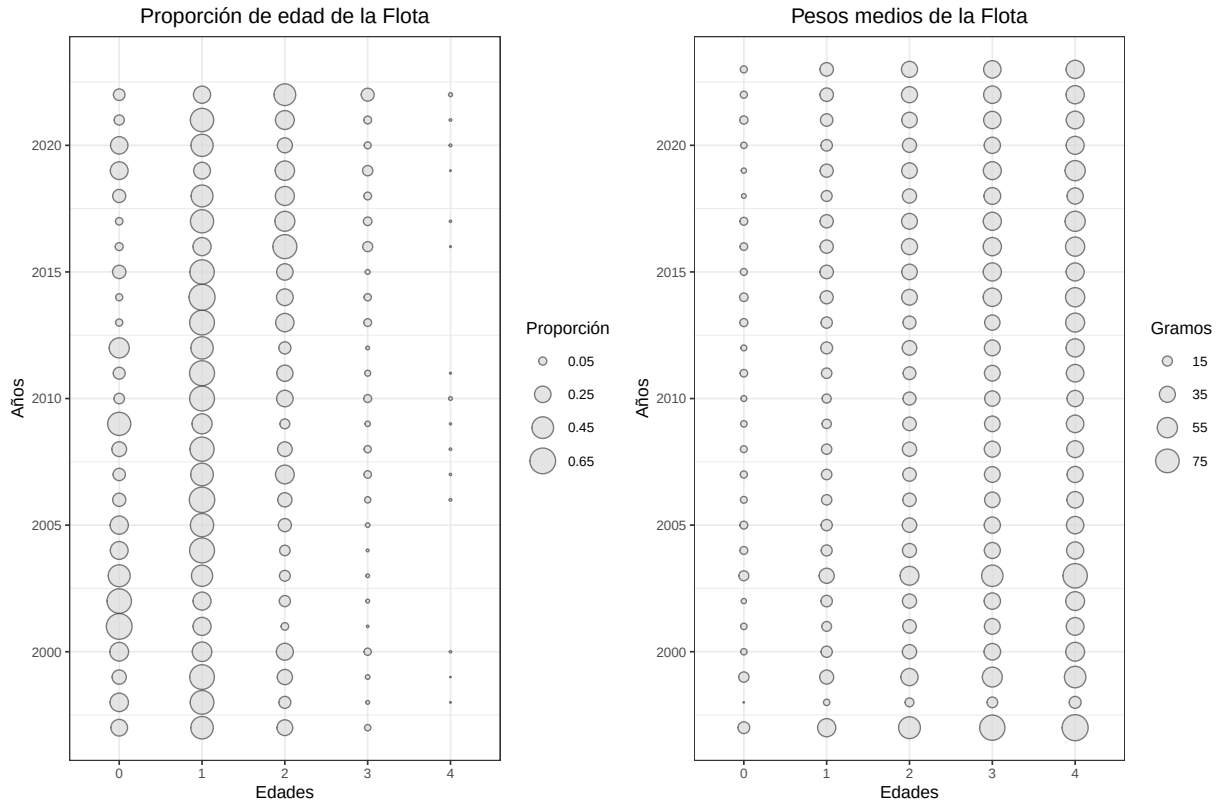
6.2 fig2.0

```
fig2.0('DatosHito2.RData')
```



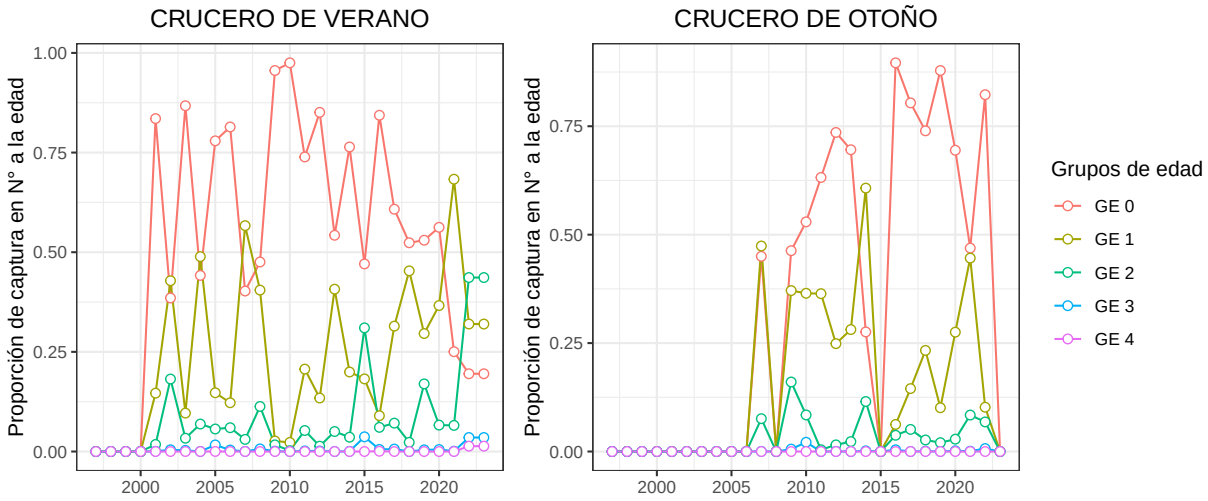
6.3 fig3.0

```
fig3.0('DatosHito2.RData')
```



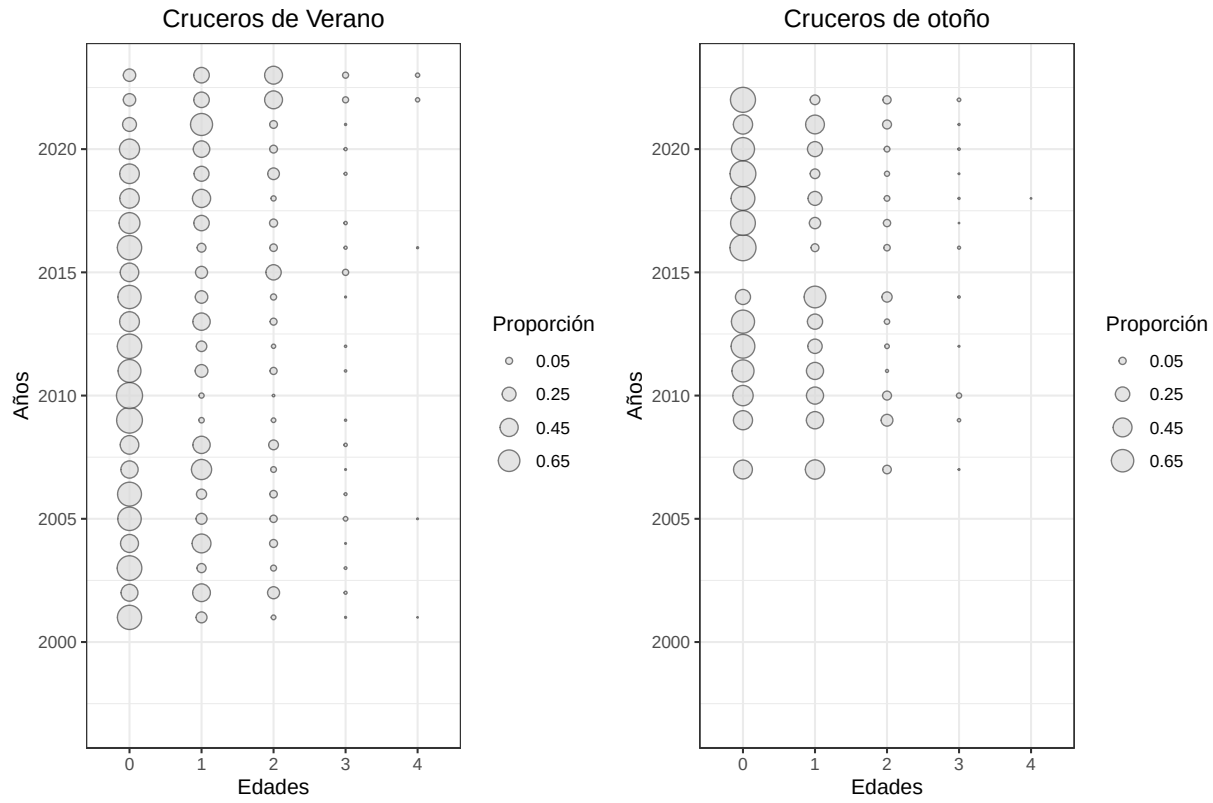
6.4 fig4.0

```
fig4.0('DatosHito2.RData')
```



6.5 fig5.0

```
fig5.0('DatosHito2.RData')
```



7 Función `Fn_Data.frame`

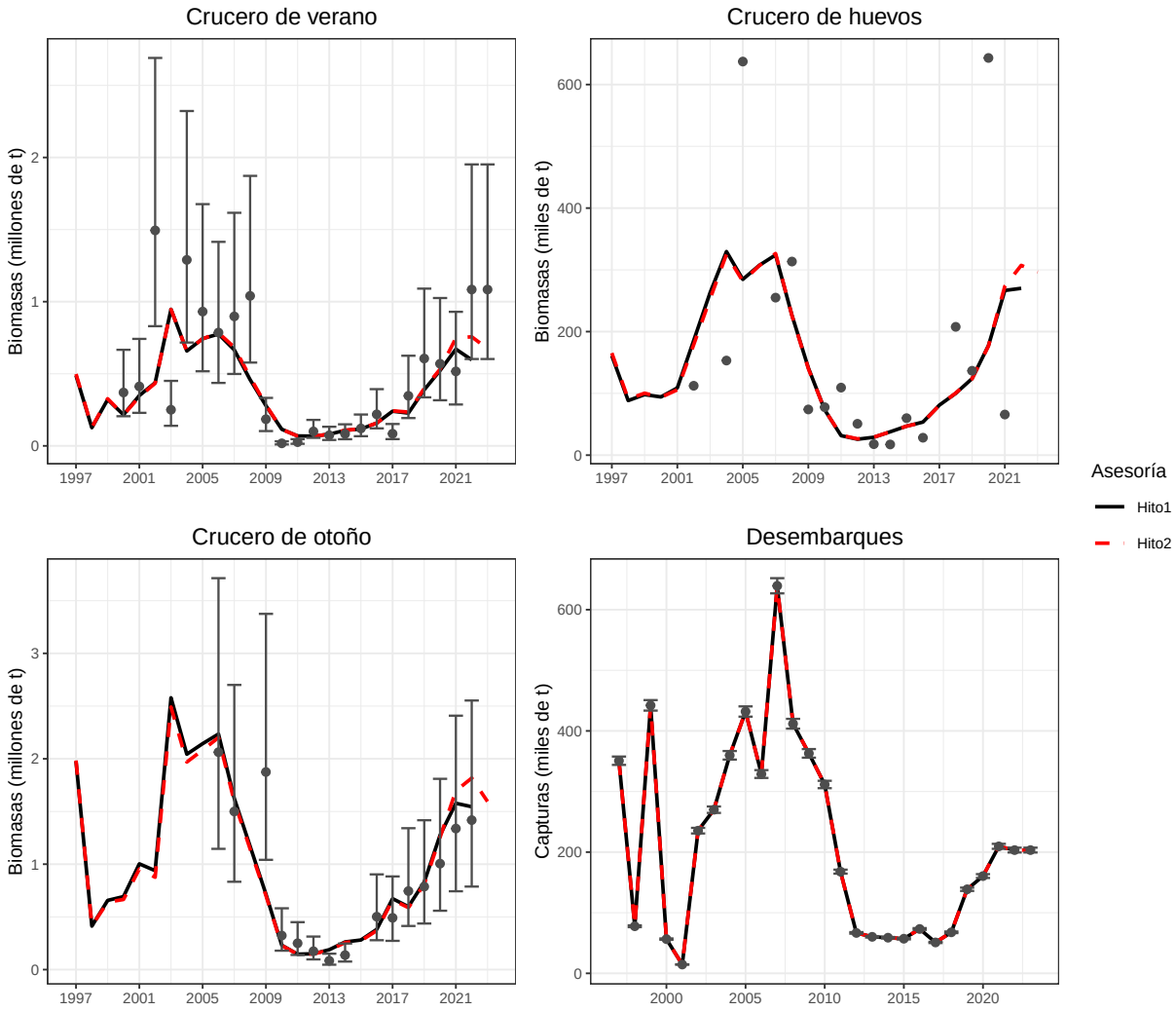
7.1 `indobs_Fig1` y `indpred_Fig1`

```
indobs_H2<-indobs_Fig1(archivo.Rdata='DatosHito2.RData',Hitoasesoria='Hito2')
indpred_H2<-indpred_Fig1(archivo.Rdata='DatosHito2.RData',Hitoasesoria='Hito2')
indpred_H1<-indpred_Fig1(archivo.Rdata='DatosHito1.RData',Hitoasesoria='Hito1')
```

7.2 `fig1`

```
base1<-merge(indobs_H2, merge(indpred_H1, indpred_H2, all = TRUE), all = TRUE)

fig1(base1)
```



7.3 resind_Fig2 y fig2

```
Res_H2<-resind_Fig2(indobs_H2,indpred_H2)

fig2(Res_H2)
```

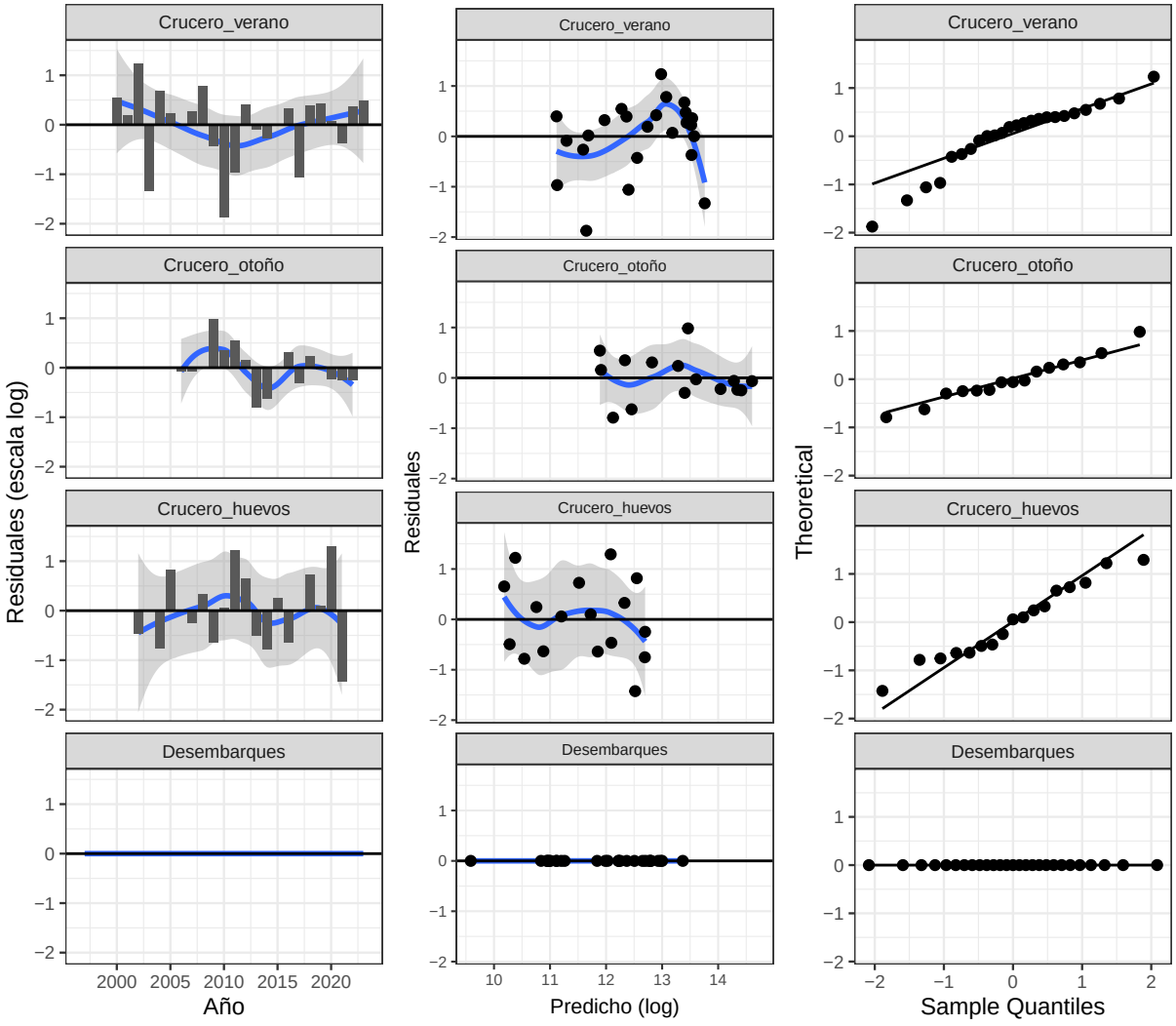


Figure 1: Residuales (escala log) del ajuste del modelo base actual a los datos observados.