

# Dolphin 11606

October 26, 2021

```
Dolphin6 <- read.csv('110606-Behavior_QC.csv')
glimpse(Dolphin6)
```

```
## Rows: 3,142
## Columns: 25
## $ X          <int> 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 2~
## $ DeployID   <chr> "Tt0019", "Tt0019", "Tt0019", "Tt0019", "Tt0019", "Tt0019"~
## $ Ptt        <int> 110606, 110606, 110606, 110606, 110606, 110606, 110606, 11~
## $ DepthSensor <lgl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA~
## $ Source     <chr> "Transmission", "Transmission", "Transmission", "Transmiss~
## $ Instr      <chr> "Mk10", "Mk10", "Mk10", "Mk10", "Mk10", "Mk10", "Mk10", "M~
## $ Count      <int> 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 2, 2, 2, 2, 2, 2, 2, 2, 1, 1~
## $ Start      <chr> "8/30/2016 17:13", "8/30/2016 17:18", "8/30/2016 22:03", "~
## $ End        <chr> "8/30/2016 17:18", "8/30/2016 22:03", "8/30/2016 22:07", "~
## $ What       <chr> "Dive", "Surface", "Dive", "Surface", "Dive", "Surface", "~
## $ Number     <int> 1, NA, 1, NA, 1, NA, 1, NA, 1, NA, 1, NA, 1, NA, 1, NA, 1~
## $ Shape      <chr> "U", "", "V", "", "U", "", "U", "", "U", "", "U", "", "V",~
## $ DepthMin    <dbl> 63.0, NA, 130.0, NA, 111.0, NA, 81.0, NA, 396.0, NA, 396.0~
## $ DepthMax    <dbl> 64.5, NA, 133.5, NA, 112.5, NA, 82.5, NA, 403.5, NA, 403.5~
## $ DurationMin <int> 253, 17070, 257, 2935, 155, 221, 241, 95, 485, 193, 505, 5~
## $ DurationMax <int> 255, 17130, 259, 2937, 157, 223, 243, 97, 487, 195, 507, 5~
## $ Shallow     <int> NA, 4413, NA, 1137, NA, 143, NA, 96, NA, 194, NA, 3074, NA~
## $ Deep        <int> NA, 12687, NA, 1799, NA, 79, NA, 0, NA, 0, NA, 2532, NA, 1~
## $ start       <chr> "8/30/2016 13:13", "8/30/2016 13:18", "8/30/2016 18:03", "~
## $ end         <chr> "8/30/2016 13:18", "8/30/2016 18:03", "8/30/2016 18:07", "~
## $ t.diff      <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0~
## $ flag        <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0~
## $ divenum     <int> 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, ~
## $ depth       <dbl> 63.75, NA, 131.75, NA, 111.75, NA, 81.75, NA, 399.75, NA, ~
## $ duration    <int> 254, 17100, 258, 2936, 156, 222, 242, 96, 486, 194, 506, 5~
```

```
wide_dolph_dives <- Dolphin6 %>%
```

```
  pivot_wider(names_from = What,
```

```
              values_from = c(X, DeployID, Ptt, Source, duration, DurationMin, DurationMax, Shallow, st
```

```
  )
glimpse(wide_dolph_dives)
```

```
## Rows: 1,306
## Columns: 39
## $ DepthSensor <lgl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA~
## $ Instr       <chr> "Mk10", "Mk10", "Mk10", "Mk10", "Mk10", "Mk10", "M~
## $ Count       <int> 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 2, 2, 2, 2, 2, 2, 2, 2, ~
## $ Number      <int> 1, NA, 1, NA, 1, NA, 1, NA, 1, NA, 1, NA, 1, NA, 1, NA, 1~
## $ Shape       <chr> "U", "", "V", "", "U", "", "U", "", "U", "", "U", "", "U", ~
## $ DepthMin     <dbl> 63.0, NA, 130.0, NA, 111.0, NA, 81.0, NA, 396.0, N~
## $ DepthMax     <dbl> 64.5, NA, 133.5, NA, 112.5, NA, 82.5, NA, 403.5, N~
## $ Deep        <int> NA, 12687, NA, 1799, NA, 79, NA, 0, NA, 0, NA, 253~
```

```
## $ depth          <dbl> 63.75, NA, 131.75, NA, 111.75, NA, 81.75, NA, 399.~
## $ X_Dive         <list> <3, 1570>, <NULL>, <5, 500>, <NULL>, 7, <NULL>, <~
## $ X_Surface      <list> <NULL>, 4, <NULL>, 6, <NULL>, 8, <NULL>, <10, 363~
## $ DeployID_Dive  <list> <"Tt0019", "Tt0019">, <NULL>, <"Tt0019", "Tt0019"~
## $ DeployID_Surface <list> <NULL>, "Tt0019", <NULL>, "Tt0019", <NULL>, "Tt00~
## $ Ptt_Dive       <list> <110606, 110606>, <NULL>, <110606, 110606>, <NULL~
## $ Ptt_Surface    <list> <NULL>, 110606, <NULL>, 110606, <NULL>, 110606, <~
## $ Source_Dive    <list> <"Transmission", "Transmission">, <NULL>, <"Trans~
## $ Source_Surface <list> <NULL>, "Transmission", <NULL>, "Transmission", <~
## $ duration_Dive  <list> <254, 238>, <NULL>, <258, 142>, <NULL>, 156, <NUL~
## $ duration_Surface <list> <NULL>, 17100, <NULL>, 2936, <NULL>, 222, <NULL>,~
## $ DurationMin_Dive <list> <253, 237>, <NULL>, <257, 141>, <NULL>, 155, <NUL~
## $ DurationMin_Surface <list> <NULL>, 17070, <NULL>, 2935, <NULL>, 221, <NULL>,~
## $ DurationMax_Dive <list> <255, 239>, <NULL>, <259, 143>, <NULL>, 157, <NUL~
## $ DurationMax_Surface <list> <NULL>, 17130, <NULL>, 2937, <NULL>, 223, <NULL>,~
## $ Shallow_Dive   <list> <NA, NA>, <NULL>, <NA, NA>, <NULL>, NA, <NULL>, <~
## $ Shallow_Surface <list> <NULL>, 4413, <NULL>, 1137, <NULL>, 143, <NULL>, ~
## $ start_Dive     <list> <"8/30/2016 13:13", "9/25/2016 2:12">, <NULL>, <"~
## $ start_Surface  <list> <NULL>, "8/30/2016 13:18", <NULL>, "8/30/2016 18:~
## $ end_Dive       <list> <"8/30/2016 13:18", "9/25/2016 2:16">, <NULL>, <"~
## $ end_Surface    <list> <NULL>, "8/30/2016 18:03", <NULL>, "8/30/2016 18:~
## $ Start_Dive     <list> <"8/30/2016 17:13", "9/25/2016 6:12">, <NULL>, <"~
## $ Start_Surface  <list> <NULL>, "8/30/2016 17:18", <NULL>, "8/30/2016 22:~
## $ End_Dive       <list> <"8/30/2016 17:18", "9/25/2016 6:16">, <NULL>, <"~
## $ End_Surface    <list> <NULL>, "8/30/2016 22:03", <NULL>, "8/30/2016 22:~
## $ t.diff_Dive    <list> <0, 0>, <NULL>, <0, 0>, <NULL>, 0, <NULL>, <0, 0>~
## $ t.diff_Surface <list> <NULL>, 0, <NULL>, 0, <NULL>, 0, <NULL>, <0, 0, 0~
## $ flag_Dive      <list> <0, 0>, <NULL>, <0, 0>, <NULL>, 0, <NULL>, <0, 0>~
## $ flag_Surface   <list> <NULL>, 0, <NULL>, 0, <NULL>, 0, <NULL>, <0, 0, 0~
## $ divenum_Dive   <list> <1, 698>, <NULL>, <2, 222>, <NULL>, 3, <NULL>, <4~
## $ divenum_Surface <list> <NULL>, 1, <NULL>, 2, <NULL>, 3, <NULL>, <4, 159,~
```

```
divedata <- wide_dolph_dives %>%
```

```
  select(-'DepthSensor',
         -'X_Surface',
         -'DeployID_Surface',
         -'Ptt_Surface',
         -'Source_Surface',
         -'t.diff_Dive',
         -'t.diff_Surface',
         -'flag_Dive',
         -'flag_Surface')
```

```
glimpse(divedata)
```

```
## Rows: 1,306
```

```
## Columns: 30
```

```
## $ Instr          <chr> "Mk10", "Mk10", "Mk10", "Mk10", "Mk10", "Mk10", "M~
## $ Count          <int> 3, 3, 3, 3, 3, 3, 3, 3, 3, 2, 2, 2, 2, 2, 2, 2, 2,~
## $ Number         <int> 1, NA, 1, NA, 1, NA, 1, NA, 1, NA, 1, NA, 1, NA, 1~
## $ Shape          <chr> "U", "", "v", "", "U", "", "U", "", "U", "", "U", ~
## $ DepthMin       <dbl> 63.0, NA, 130.0, NA, 111.0, NA, 81.0, NA, 396.0, N~
## $ DepthMax       <dbl> 64.5, NA, 133.5, NA, 112.5, NA, 82.5, NA, 403.5, N~
## $ Deep           <int> NA, 12687, NA, 1799, NA, 79, NA, 0, NA, 0, NA, 253~
## $ depth          <dbl> 63.75, NA, 131.75, NA, 111.75, NA, 81.75, NA, 399.~
## $ X_Dive         <list> <3, 1570>, <NULL>, <5, 500>, <NULL>, 7, <NULL>, <~
```

```
## $ DeployID_Dive      <list> <"Tt0019", "Tt0019">, <NULL>, <"Tt0019", "Tt0019">~
## $ Ptt_Dive           <list> <110606, 110606>, <NULL>, <110606, 110606>, <NULL>~
## $ Source_Dive        <list> <"Transmission", "Transmission">, <NULL>, <"Trans~
## $ duration_Dive       <list> <254, 238>, <NULL>, <258, 142>, <NULL>, 156, <NUL~
## $ duration_Surface    <list> <NULL>, 17100, <NULL>, 2936, <NULL>, 222, <NULL>,~
## $ DurationMin_Dive    <list> <253, 237>, <NULL>, <257, 141>, <NULL>, 155, <NUL~
## $ DurationMin_Surface <list> <NULL>, 17070, <NULL>, 2935, <NULL>, 221, <NULL>,~
## $ DurationMax_Dive    <list> <255, 239>, <NULL>, <259, 143>, <NULL>, 157, <NUL~
## $ DurationMax_Surface <list> <NULL>, 17130, <NULL>, 2937, <NULL>, 223, <NULL>,~
## $ Shallow_Dive        <list> <NA, NA>, <NULL>, <NA, NA>, <NULL>, NA, <NULL>, <~
## $ Shallow_Surface     <list> <NULL>, 4413, <NULL>, 1137, <NULL>, 143, <NULL>, ~
## $ start_Dive          <list> <"8/30/2016 13:13", "9/25/2016 2:12">, <NULL>, <"~
## $ start_Surface       <list> <NULL>, "8/30/2016 13:18", <NULL>, "8/30/2016 18:~
## $ end_Dive            <list> <"8/30/2016 13:18", "9/25/2016 2:16">, <NULL>, <"~
## $ end_Surface         <list> <NULL>, "8/30/2016 18:03", <NULL>, "8/30/2016 18:~
## $ Start_Dive          <list> <"8/30/2016 17:13", "9/25/2016 6:12">, <NULL>, <"~
## $ Start_Surface       <list> <NULL>, "8/30/2016 17:18", <NULL>, "8/30/2016 22:~
## $ End_Dive            <list> <"8/30/2016 17:18", "9/25/2016 6:16">, <NULL>, <"~
## $ End_Surface         <list> <NULL>, "8/30/2016 22:03", <NULL>, "8/30/2016 22:~
## $ divenum_Dive        <list> <1, 698>, <NULL>, <2, 222>, <NULL>, 3, <NULL>, <4~
## $ divenum_Surface     <list> <NULL>, 1, <NULL>, 2, <NULL>, 3, <NULL>, <4, 159,~
```

```
gf_bar( ~ DepthMax, data = divedata)
```

