

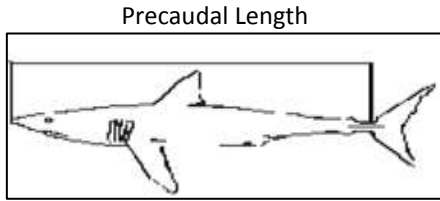


# NAMIBIA ROCK AND SURF ANGLING ASSOCIATION

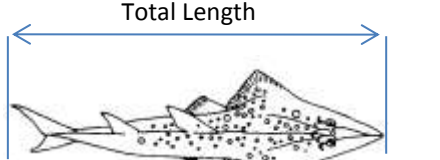


## Official NRSAA Length to Weight Conversion Tables 2014

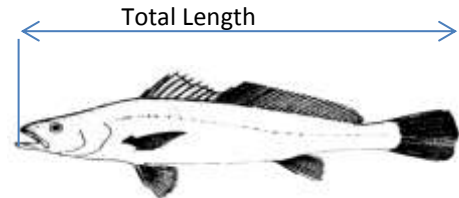
(Revision 02 17/02/2014)



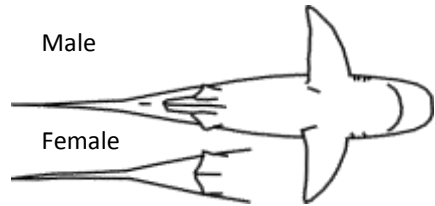
Precaudal Length



Total Length

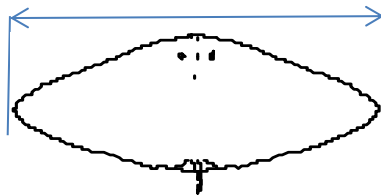


Total Length



Male

Female



Fork Length



### Typical Local Species Measurement Type

**Bronzies & Cow sharks all measured Precaudal length**

**Smoothhounds, Spotted Gully & Lesser Sandsharks measured Total length**

**All Rays measured as Disc Width**

**Kob & Galjeon measure as Total Length**

**Blacktail & Stenbras measured as Fork Length**

**Other species refer to Index page**

| COMMON SPECIES      | MEAS | UNIT |
|---------------------|------|------|
| BLACKTAIL           | FL   | CM   |
| WEST COAST STENBRAS | FL   | CM   |
| LEERVIS / GARRICK   | FL   | CM   |
| SHAD                | FL   | CM   |

|         |    |    |
|---------|----|----|
| GALJOEN | TL | CM |
| KOB     | TL | CM |

|              |    |    |
|--------------|----|----|
| COPPER SHARK | PL | CM |
| COW SHARK    | PL | CM |

|                     |    |    |
|---------------------|----|----|
| SPOTTED GULLY SHARK | TL | CM |
| SMOOTH HOUND SHARK  | TL | CM |
| LESSER SANDSHARK    | TL | CM |

|              |    |    |
|--------------|----|----|
| BLUE RAY     | DW | CM |
| DUCKBILL RAY | DW | CM |
| BROWN RAY    | DW | CM |

St. Joseph TL  
Tope TL

**TL means 'Total Length'**

**FL means 'Fork Length'**

**PL means 'Precaudal Length'**

**DW means 'Disc Width'**

**All these measurements are taken with the fish lying naturally on a flat surface.**

**Any fish or shark not listed by length, measure and leave for the Weighmaster or Records Officer to calculate off computer program**

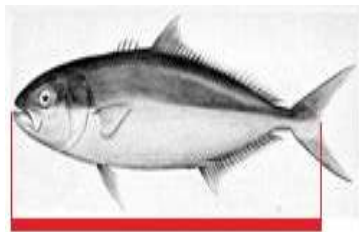
Guide to minimum lengths for some common species

Shyshark = 71cm TL = 2.0kg

White Sea Catfish = 50cm TL = 2.0kg

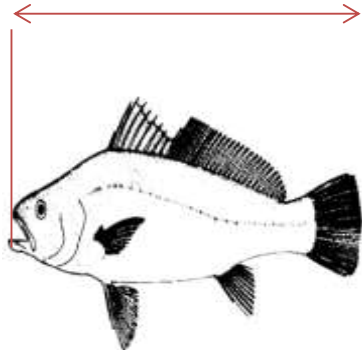
## Blacktail - *Diplodus sargus capensis*

| Fork Length (cm) | Mass (kg) |
|------------------|-----------|
| 23               | 0.3       |
| 24               | 0.4       |
| 25               | 0.4       |
| 26               | 0.5       |
| 27               | 0.6       |
| 28               | 0.6       |
| 29               | 0.7       |
| 30               | 0.8       |
| 31               | 0.9       |
| 32               | 1.0       |
| 33               | 1.1       |
| 34               | 1.2       |
| 35               | 1.3       |
| 36               | 1.5       |
| 37               | 1.6       |
| 38               | 1.7       |
| 39               | 1.8       |
| 40               | 2.0       |
| 41               | 2.1       |
| 42               | 2.3       |
| 43               | 2.5       |
| 44               | 2.6       |
| 45               | 2.8       |
| 46               | 3.0       |
| 47               | 3.2       |
| 48               | 3.4       |



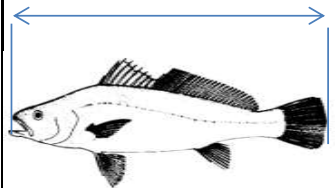
**Galjoen - *Dichistius capensis***

| Total length (cm) | Mass (kg) | Total length (cm) | Mass (kg) |
|-------------------|-----------|-------------------|-----------|
| 30                | 0.5       | 69                | 6.5       |
| 31                | 0.5       | 70                | 6.8       |
| 32                | 0.6       | 71                | 7.1       |
| 33                | 0.7       | 72                | 7.4       |
| 34                | 0.7       | 73                | 7.7       |
| 35                | 0.8       | 74                | 8.1       |
| 36                | 0.9       | 75                | 8.4       |
| 37                | 0.9       | 76                | 8.8       |
| 38                | 1.0       | 77                | 9.2       |
| 39                | 1.1       | 78                | 9.5       |
| 40                | 1.2       | 79                | 9.9       |
| 41                | 1.3       | 80                | 10.3      |
| 42                | 1.4       | 81                | 10.7      |
| 43                | 1.5       | 82                | 11.1      |
| 44                | 1.6       | 83                | 11.6      |
| 45                | 1.7       | 84                | 12.0      |
| 46                | 1.8       | 84                | 12.5      |
| 47                | 2.0       | 86                | 12.9      |
| 48                | 2.1       | 87                | 13.4      |
| 49                | 2.2       | 88                | 13.9      |
| 50                | 2.4       | 89                | 14.4      |
| 51                | 2.5       | 90                | 14.9      |
| 52                | 2.7       |                   |           |
| 53                | 2.9       |                   |           |
| 54                | 3.0       |                   |           |
| 55                | 3.2       |                   |           |
| 56                | 3.4       |                   |           |
| 57                | 3.6       |                   |           |
| 58                | 3.8       |                   |           |
| 59                | 4.0       |                   |           |
| 60                | 4.2       |                   |           |
| 61                | 4.4       |                   |           |
| 62                | 4.7       |                   |           |
| 63                | 4.9       |                   |           |
| 64                | 5.1       |                   |           |
| 65                | 5.4       |                   |           |
| 66                | 5.7       |                   |           |
| 67                | 5.9       |                   |           |
| 68                | 6.2       |                   |           |



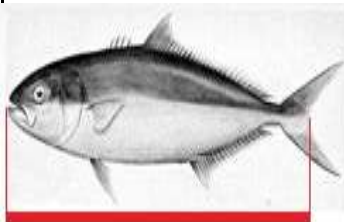
## Kob - *Argyrosomus japonicus*

| Total Length (cm) | Mass (kg) | Total Length (cm) | Mass (kg) | Total Length (cm) | Mass (kg) | Total Length (cm) | Mass (kg) |
|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|
| 40                | 0.7       | 78                | 5.0       | 116               | 16.6      | 154               | 39.2      |
| 41                | 0.7       | 79                | 5.2       | 117               | 17.0      | 155               | 40.0      |
| 42                | 0.8       | 80                | 5.4       | 118               | 17.4      | 156               | 40.8      |
| 43                | 0.8       | 81                | 5.6       | 119               | 17.9      | 157               | 41.6      |
| 44                | 0.9       | 82                | 5.8       | 120               | 18.4      | 158               | 42.4      |
| 45                | 0.9       | 83                | 6.0       | 121               | 18.8      | 159               | 43.2      |
| 46                | 1.0       | 84                | 6.2       | 122               | 19.3      | 160               | 44.0      |
| 47                | 1.1       | 85                | 6.4       | 123               | 19.8      | 161               | 44.9      |
| 48                | 1.1       | 86                | 6.7       | 124               | 20.3      | 162               | 45.7      |
| 49                | 1.2       | 87                | 6.9       | 125               | 20.8      | 163               | 46.6      |
| 50                | 1.3       | 88                | 7.2       | 126               | 21.3      | 164               | 47.4      |
| 51                | 1.4       | 89                | 7.4       | 127               | 21.8      | 165               | 48.3      |
| 52                | 1.4       | 90                | 7.7       | 128               | 22.3      | 166               | 49.2      |
| 53                | 1.5       | 91                | 7.9       | 129               | 22.9      | 167               | 50.1      |
| 54                | 1.6       | 92                | 8.2       | 130               | 23.4      | 168               | 51.1      |
| 55                | 1.7       | 93                | 8.5       | 131               | 24.0      | 169               | 52.0      |
| 56                | 1.8       | 94                | 8.7       | 132               | 24.5      | 170               | 52.9      |
| 57                | 1.9       | 95                | 9.0       | 133               | 25.1      | 171               | 53.9      |
| 58                | 2.0       | 96                | 9.3       | 134               | 25.7      | 172               | 54.8      |
| 59                | 2.1       | 97                | 9.6       | 135               | 26.3      | 173               | 55.8      |
| 60                | 2.2       | 98                | 9.9       | 136               | 26.9      | 174               | 56.8      |
| 61                | 2.3       | 99                | 10.2      | 137               | 27.5      | 175               | 57.8      |
| 62                | 2.5       | 100               | 10.5      | 138               | 28.1      | 176               | 58.8      |
| 63                | 2.6       | 101               | 10.9      | 139               | 28.7      | 177               | 59.8      |
| 64                | 2.7       | 102               | 11.2      | 140               | 29.3      | 178               | 60.9      |
| 65                | 2.8       | 103               | 11.5      | 141               | 30.0      | 179               | 61.9      |
| 66                | 3.0       | 104               | 11.9      | 142               | 30.6      | 180               | 63.0      |
| 67                | 3.1       | 105               | 12.2      | 143               | 31.3      | 181               | 64.0      |
| 68                | 3.3       | 106               | 12.6      | 144               | 32.0      | 182               | 65.1      |
| 69                | 3.4       | 107               | 13.0      | 145               | 32.6      | 183               | 66.2      |
| 70                | 3.6       | 108               | 13.3      | 146               | 33.3      |                   |           |
| 71                | 3.7       | 109               | 13.7      | 147               | 34.0      |                   |           |
| 72                | 3.9       | 110               | 14.1      | 148               | 34.7      |                   |           |
| 73                | 4.1       | 111               | 14.5      | 149               | 35.4      |                   |           |
| 74                | 4.2       | 112               | 14.9      | 150               | 36.2      |                   |           |
| 75                | 4.4       | 113               | 15.3      | 151               | 36.9      |                   |           |
| 76                | 4.6       | 114               | 15.7      | 152               | 37.7      |                   |           |
| 77                | 4.8       | 115               | 16.1      | 153               | 38.4      |                   |           |



## West Coast Steenbras - *Lithognathus aureti*

| Fork Length (cm) | Mass (kg) | Fork Length (cm) | Mass (kg) | Fork Length (cm) | Mass (kg) |
|------------------|-----------|------------------|-----------|------------------|-----------|
| 32               | 0.7       | 69               | 6.8       | 106              | 24.3      |
| 33               | 0.8       | 70               | 7.1       | 107              | 24.9      |
| 34               | 0.9       | 71               | 7.5       | 108              | 25.6      |
| 35               | 0.9       | 72               | 7.8       |                  |           |
| 36               | 1.0       | 73               | 8.1       |                  |           |
| 37               | 1.1       | 74               | 8.4       |                  |           |
| 38               | 1.2       | 75               | 8.8       |                  |           |
| 39               | 1.3       | 76               | 9.1       |                  |           |
| 40               | 1.4       | 77               | 9.5       |                  |           |
| 41               | 1.5       | 78               | 9.8       |                  |           |
| 42               | 1.6       | 79               | 10.2      |                  |           |
| 43               | 1.7       | 80               | 10.6      |                  |           |
| 44               | 1.8       | 81               | 11.0      |                  |           |
| 45               | 1.9       | 82               | 11.4      |                  |           |
| 46               | 2.1       | 83               | 11.8      |                  |           |
| 47               | 2.2       | 84               | 12.2      |                  |           |
| 48               | 2.4       | 85               | 12.7      |                  |           |
| 49               | 2.5       | 86               | 13.1      |                  |           |
| 50               | 2.7       | 87               | 13.6      |                  |           |
| 51               | 2.8       | 88               | 14.0      |                  |           |
| 52               | 3.0       | 89               | 14.5      |                  |           |
| 53               | 3.1       | 90               | 15.0      |                  |           |
| 54               | 3.3       | 91               | 15.5      |                  |           |
| 55               | 3.5       | 92               | 16.0      |                  |           |
| 56               | 3.7       | 93               | 16.5      |                  |           |
| 57               | 3.9       | 94               | 17.0      |                  |           |
| 58               | 4.1       | 95               | 17.6      |                  |           |
| 59               | 4.3       | 96               | 18.1      |                  |           |
| 60               | 4.5       | 97               | 18.7      |                  |           |
| 61               | 4.8       | 98               | 19.2      |                  |           |
| 62               | 5.0       | 99               | 19.8      |                  |           |
| 63               | 5.2       | 100              | 20.4      |                  |           |
| 64               | 5.5       | 101              | 21.0      |                  |           |
| 65               | 5.7       | 102              | 21.7      |                  |           |
| 66               | 6.0       | 103              | 22.3      |                  |           |
| 67               | 6.3       | 104              | 22.9      |                  |           |
| 68               | 6.6       | 105              | 23.6      |                  |           |



Garrick - Lichia amia

| Fork Length (cm) | Mass (kg) | Fork Length (cm) | Mass (kg) | Fork Length (cm) | Mass (kg) | Fork Length (cm) | Mass (kg) |
|------------------|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
| 36               | 0.7       | 68               | 3.8       | 100              | 10.9      | 132              | 23.2      |
| 37               | 0.7       | 69               | 4.0       | 101              | 11.2      | 133              | 23.7      |
| 38               | 0.8       | 70               | 4.1       | 102              | 11.5      | 134              | 24.2      |
| 39               | 0.8       | 71               | 4.3       | 103              | 11.8      | 135              | 24.7      |
| 40               | 0.9       | 72               | 4.5       | 104              | 12.1      | 136              | 25.2      |
| 41               | 1.0       | 73               | 4.6       | 105              | 12.5      | 137              | 25.7      |
| 42               | 1.0       | 74               | 4.8       | 106              | 12.8      | 138              | 26.2      |
| 43               | 1.1       | 75               | 5.0       | 107              | 13.1      | 139              | 26.7      |
| 44               | 1.2       | 76               | 5.2       | 108              | 13.4      | 140              | 27.3      |
| 45               | 1.2       | 77               | 5.3       | 109              | 13.8      | 141              | 27.8      |
| 46               | 1.3       | 78               | 5.5       | 110              | 14.1      | 142              | 28.3      |
| 47               | 1.4       | 79               | 5.7       | 111              | 14.5      | 143              | 28.9      |
| 48               | 1.5       | 80               | 5.9       | 112              | 14.8      | 144              | 29.4      |
| 49               | 1.6       | 81               | 6.1       | 113              | 15.2      | 145              | 30.0      |
| 50               | 1.6       | 82               | 6.3       | 114              | 15.6      | 146              | 30.6      |
| 51               | 1.7       | 83               | 6.6       | 115              | 16.0      | 147              | 31.1      |
| 52               | 1.8       | 84               | 6.8       | 116              | 16.3      | 148              | 31.7      |
| 53               | 1.9       | 85               | 7.0       | 117              | 16.7      | 149              | 32.3      |
| 54               | 2.0       | 86               | 7.2       | 118              | 17.1      | 150              | 32.9      |
| 55               | 2.1       | 87               | 7.5       | 119              | 17.5      | 151              | 33.5      |
| 56               | 2.2       | 88               | 7.7       | 120              | 17.9      | 152              | 34.1      |
| 57               | 2.4       | 89               | 7.9       | 121              | 18.3      | 153              | 34.7      |
| 58               | 2.5       | 90               | 8.2       | 122              | 18.7      | 154              | 35.4      |
| 59               | 2.6       | 91               | 8.4       | 123              | 19.2      | 155              | 36.0      |
| 60               | 2.7       | 92               | 8.7       | 124              | 19.6      | 156              | 36.6      |
| 61               | 2.8       | 93               | 8.9       | 125              | 20.0      | 157              | 37.3      |
| 62               | 3.0       | 94               | 9.2       | 126              | 20.5      | 158              | 37.9      |
| 63               | 3.1       | 95               | 9.5       | 127              | 20.9      | 159              | 38.6      |
| 64               | 3.2       | 96               | 9.8       | 128              | 21.4      | 160              | 39.2      |
| 65               | 3.4       | 97               | 10.0      | 129              | 21.8      | 161              | 39.9      |
| 66               | 3.5       | 98               | 10.3      | 130              | 22.3      | 162              | 40.6      |
| 67               | 3.7       | 99               | 10.6      | 131              | 22.8      | 163              | 41.3      |



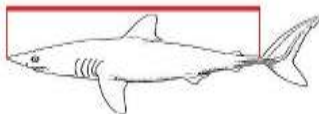
## Shad - Pomatomus saltarix

| Fork length (cm) | Mass (kg) | Fork length (cm) | Mass (kg) |
|------------------|-----------|------------------|-----------|
| 42               | 1.0       | 78               | 6.2       |
| 43               | 1.1       | 79               | 6.5       |
| 44               | 1.1       | 80               | 6.7       |
| 45               | 1.2       | 81               | 7.0       |
| 46               | 1.3       | 82               | 7.2       |
| 47               | 1.4       | 83               | 7.5       |
| 48               | 1.5       | 84               | 7.8       |
| 49               | 1.6       | 85               | 8.0       |
| 50               | 1.7       | 86               | 8.3       |
| 51               | 1.8       |                  |           |
| 52               | 1.9       |                  |           |
| 53               | 2.0       |                  |           |
| 54               | 2.1       |                  |           |
| 55               | 2.2       |                  |           |
| 56               | 2.3       |                  |           |
| 57               | 2.4       |                  |           |
| 58               | 2.6       |                  |           |
| 59               | 2.7       |                  |           |
| 60               | 2.9       |                  |           |
| 61               | 3.0       |                  |           |
| 62               | 3.1       |                  |           |
| 63               | 3.3       |                  |           |
| 64               | 3.5       |                  |           |
| 65               | 3.6       |                  |           |
| 66               | 3.8       |                  |           |
| 67               | 4.0       |                  |           |
| 68               | 4.1       |                  |           |
| 69               | 4.3       |                  |           |
| 70               | 4.5       |                  |           |
| 71               | 4.7       |                  |           |
| 72               | 4.9       |                  |           |
| 73               | 5.1       |                  |           |
| 74               | 5.3       |                  |           |
| 75               | 5.5       |                  |           |
| 76               | 5.8       |                  |           |
| 77               | 6.0       |                  |           |



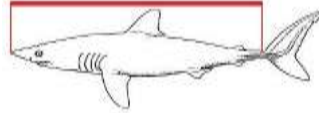


Copper Shark - Male - *Carcharhinus brachyurus*



| Precaudal Length (cm) | Mass (kg) | Precaudal Length (cm) | Mass (kg) | Precaudal Length (cm) | Mass (kg) |
|-----------------------|-----------|-----------------------|-----------|-----------------------|-----------|
| 110                   | 16.7      | 148                   | 42.1      | 186                   | 85.6      |
| 111                   | 17.2      | 149                   | 43.0      | 187                   | 87.1      |
| 112                   | 17.7      | 150                   | 43.9      | 188                   | 88.5      |
| 113                   | 18.2      | 151                   | 44.8      | 189                   | 90.0      |
| 114                   | 18.7      | 152                   | 45.7      | 190                   | 91.5      |
| 115                   | 19.2      | 153                   | 46.7      | 191                   | 93.0      |
| 116                   | 19.7      | 154                   | 47.6      | 192                   | 94.5      |
| 117                   | 20.3      | 155                   | 48.6      | 193                   | 96.1      |
| 118                   | 20.8      | 156                   | 49.6      | 194                   | 97.6      |
| 119                   | 21.4      | 157                   | 50.6      | 195                   | 99.2      |
| 120                   | 21.9      | 158                   | 51.6      | 196                   | 100.8     |
| 121                   | 22.5      | 159                   | 52.6      | 197                   | 102.4     |
| 122                   | 23.1      | 160                   | 53.6      | 198                   | 104.0     |
| 123                   | 23.7      | 161                   | 54.7      | 199                   | 105.7     |
| 124                   | 24.3      | 162                   | 55.7      | 200                   | 107.3     |
| 125                   | 24.9      | 163                   | 56.8      | 201                   | 109.0     |
| 126                   | 25.5      | 164                   | 57.9      | 202                   | 110.7     |
| 127                   | 26.1      | 165                   | 59.0      | 203                   | 112.4     |
| 128                   | 26.8      | 166                   | 60.1      | 204                   | 114.1     |
| 129                   | 27.4      | 167                   | 61.3      | 205                   | 115.9     |
| 130                   | 28.1      | 168                   | 62.4      | 206                   | 117.7     |
| 131                   | 28.8      | 169                   | 63.6      | 207                   | 119.9     |
| 132                   | 29.5      | 170                   | 64.7      | 208                   | 121.2     |
| 133                   | 30.2      | 171                   | 65.9      | 209                   | 123.1     |
| 134                   | 30.9      | 172                   | 67.1      | 210                   | 124.9     |
| 135                   | 31.6      | 173                   | 68.4      | 211                   | 126.8     |
| 136                   | 32.3      | 174                   | 69.6      | 212                   | 128.6     |
| 137                   | 33.1      | 175                   | 70.8      | 213                   | 130.5     |
| 138                   | 33.8      | 176                   | 72.1      | 214                   | 132.5     |
| 139                   | 34.6      | 177                   | 73.4      | 215                   | 134.4     |
| 140                   | 35.4      | 178                   | 74.7      | 216                   | 136.3     |
| 141                   | 36.2      | 179                   | 76.0      | 217                   | 138.3     |
| 142                   | 37.0      | 180                   | 77.3      | 218                   | 140.3     |
| 143                   | 37.8      | 181                   | 78.7      | 219                   | 142.3     |
| 144                   | 38.6      | 182                   | 80.0      | 220                   | 144.3     |
| 145                   | 39.5      | 183                   | 81.4      | 221                   | 146.4     |
| 146                   | 40.3      | 184                   | 82.8      | 222                   | 148.5     |
| 147                   | 41.2      | 185                   | 84.2      | 223                   | 150.6     |

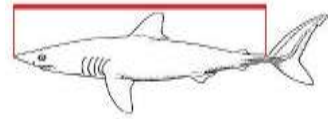
## Copper Shark - Female



- *Carcharhinus brachyurus*

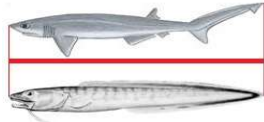
| Precaudal Length (cm) | Mass (kg) | Precaudal Length (cm) | Mass (kg) | Precaudal Length (cm) | Mass (kg) |
|-----------------------|-----------|-----------------------|-----------|-----------------------|-----------|
| 116                   | 20.4      | 151                   | 46.6      | 186                   | 89.7      |
| 117                   | 20.9      | 152                   | 47.6      | 187                   | 91.3      |
| 118                   | 21.5      | 153                   | 48.6      | 188                   | 92.8      |
| 119                   | 22.1      | 154                   | 49.6      | 189                   | 94.4      |
| 120                   | 22.7      | 155                   | 50.6      | 190                   | 95.9      |
| 121                   | 23.3      | 156                   | 51.7      | 191                   | 97.5      |
| 122                   | 23.9      | 157                   | 52.7      | 192                   | 99.2      |
| 123                   | 24.5      | 158                   | 53.8      | 193                   | 100.8     |
| 124                   | 25.1      | 159                   | 54.8      | 194                   | 102.4     |
| 125                   | 25.8      | 160                   | 55.9      | 195                   | 104.1     |
| 126                   | 26.4      | 161                   | 57.0      | 196                   | 105.8     |
| 127                   | 27.1      | 162                   | 58.2      | 197                   | 107.5     |
| 128                   | 27.8      | 163                   | 59.3      | 198                   | 109.2     |
| 129                   | 28.4      | 164                   | 60.4      | 199                   | 111.0     |
| 130                   | 29.1      | 165                   | 61.6      | 200                   | 112.7     |
| 131                   | 29.9      | 166                   | 62.8      | 201                   | 114.5     |
| 132                   | 30.6      | 167                   | 64.0      | 202                   | 116.3     |
| 133                   | 31.3      | 168                   | 65.2      | 203                   | 118.1     |
| 134                   | 32.1      | 169                   | 66.4      | 204                   | 120.0     |
| 135                   | 32.8      | 170                   | 67.7      | 205                   | 121.8     |
| 136                   | 33.6      | 171                   | 68.9      | 206                   | 123.7     |
| 137                   | 34.4      | 172                   | 70.2      | 207                   | 125.6     |
| 138                   | 35.2      | 173                   | 71.5      | 208                   | 127.5     |
| 139                   | 36.0      | 174                   | 72.8      | 209                   | 129.4     |
| 140                   | 36.8      | 175                   | 74.1      | 210                   | 131.4     |
| 141                   | 37.6      | 176                   | 75.4      | 211                   | 133.4     |
| 142                   | 38.5      | 177                   | 76.8      | 212                   | 135.4     |
| 143                   | 39.3      | 178                   | 78.2      | 213                   | 137.4     |
| 144                   | 40.2      | 179                   | 79.6      | 214                   | 139.4     |
| 145                   | 41.1      | 180                   | 81.0      | 215                   | 141.5     |
| 146                   | 42.0      | 181                   | 82.4      | 216                   | 143.5     |
| 147                   | 42.9      | 182                   | 83.8      | 217                   | 145.6     |
| 148                   | 43.8      | 183                   | 85.3      | 218                   | 147.8     |
| 149                   | 44.7      | 184                   | 86.7      | 219                   | 149.9     |
| 150                   | 45.7      | 185                   | 88.2      | 220                   | 152.1     |

## Cow Shark - *Notorynchus cepedianus*



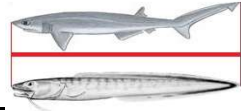
| Precaudal Length (cm) | Mass (kg) | Precaudal Length (cm) | Mass (kg) | Precaudal Length (cm) | Mass (kg) |
|-----------------------|-----------|-----------------------|-----------|-----------------------|-----------|
| 75                    | 4.7       | 112                   | 17.4      | 149                   | 44.3      |
| 76                    | 4.9       | 113                   | 17.9      | 150                   | 45.3      |
| 77                    | 5.1       | 114                   | 18.4      | 151                   | 46.3      |
| 78                    | 5.3       | 115                   | 19.0      | 152                   | 47.3      |
| 79                    | 5.5       | 116                   | 19.5      | 153                   | 48.4      |
| 80                    | 5.8       | 117                   | 20.1      | 154                   | 49.4      |
| 81                    | 6.0       | 118                   | 20.6      | 155                   | 50.5      |
| 82                    | 6.3       | 119                   | 21.2      | 156                   | 51.6      |
| 83                    | 6.5       | 120                   | 21.8      | 157                   | 52.6      |
| 84                    | 6.8       | 121                   | 22.4      | 158                   | 53.8      |
| 85                    | 7.0       | 122                   | 23.0      | 159                   | 54.9      |
| 86                    | 7.3       | 123                   | 23.6      | 160                   | 56.0      |
| 87                    | 7.6       | 124                   | 24.3      | 161                   | 57.2      |
| 88                    | 7.9       | 125                   | 24.9      | 162                   | 58.3      |
| 89                    | 8.2       | 126                   | 25.6      | 163                   | 59.5      |
| 90                    | 8.5       | 127                   | 26.3      | 164                   | 60.7      |
| 91                    | 8.8       | 128                   | 26.9      | 165                   | 62.0      |
| 92                    | 9.1       | 129                   | 27.6      | 166                   | 63.2      |
| 93                    | 9.4       | 130                   | 28.3      | 167                   | 64.5      |
| 94                    | 9.8       | 131                   | 29.1      | 168                   | 65.7      |
| 95                    | 10.1      | 132                   | 29.8      | 169                   | 67.0      |
| 96                    | 10.5      | 133                   | 30.6      | 170                   | 68.3      |
| 97                    | 10.8      | 134                   | 31.3      | 171                   | 69.7      |
| 98                    | 11.2      | 135                   | 32.1      | 172                   | 71.0      |
| 99                    | 11.6      | 136                   | 32.9      | 173                   | 72.4      |
| 100                   | 12.0      | 137                   | 33.7      | 174                   | 73.8      |
| 101                   | 12.4      | 138                   | 34.5      | 175                   | 75.2      |
| 102                   | 12.8      | 139                   | 35.3      | 176                   | 76.6      |
| 103                   | 13.2      | 140                   | 36.1      | 177                   | 78.0      |
| 104                   | 13.6      | 141                   | 37.0      | 178                   | 79.5      |
| 105                   | 14.1      | 142                   | 37.9      | 179                   | 80.9      |
| 106                   | 14.5      | 143                   | 38.8      | 180                   | 82.4      |
| 107                   | 15.0      | 144                   | 39.6      | 181                   | 83.9      |
| 108                   | 15.4      | 145                   | 40.6      | 182                   | 85.5      |
| 109                   | 15.9      | 146                   | 41.5      | 183                   | 87.0      |
| 110                   | 16.4      | 147                   | 42.4      | 184                   | 88.6      |
| 111                   | 16.9      | 148                   | 43.4      | 185                   | 90.2      |

**Spotted Gully - *Triakis megalopterus***



| Total Length (mm) | Mass (kg) | Total Length (mm) | Mass (kg) | Total Length (mm) | Mass (kg) | Total Length (mm) | Mass (kg) |
|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|
| 80                | 2.0       | 114               | 6.8       | 148               | 16.6      | 182               | 33.8      |
| 81                | 2.1       | 115               | 7.0       | 149               | 17.0      | 183               | 34.4      |
| 82                | 2.2       | 116               | 7.2       | 150               | 17.4      | 184               | 35.1      |
| 83                | 2.3       | 117               | 7.4       | 151               | 17.8      | 185               | 35.7      |
| 84                | 2.4       | 118               | 7.6       | 152               | 18.2      | 186               | 36.4      |
| 85                | 2.5       | 119               | 7.9       | 153               | 18.6      | 187               | 37.1      |
| 86                | 2.6       | 120               | 8.1       | 154               | 19.1      | 188               | 37.8      |
| 87                | 2.7       | 121               | 8.3       | 155               | 19.5      | 189               | 38.5      |
| 88                | 2.8       | 122               | 8.6       | 156               | 19.9      | 190               | 39.2      |
| 89                | 2.9       | 123               | 8.8       | 157               | 20.4      | 191               | 39.9      |
| 90                | 3.0       | 124               | 9.1       | 158               | 20.8      | 192               | 40.6      |
| 91                | 3.1       | 125               | 9.3       | 159               | 21.3      | 193               | 41.3      |
| 92                | 3.3       | 126               | 9.6       | 160               | 21.7      | 194               | 42.1      |
| 93                | 3.4       | 127               | 9.8       | 161               | 22.2      | 195               | 42.8      |
| 94                | 3.5       | 128               | 10.1      | 162               | 22.7      | 196               | 43.6      |
| 95                | 3.6       | 129               | 10.4      | 163               | 23.1      | 197               | 44.3      |
| 96                | 3.8       | 130               | 10.7      | 164               | 23.6      | 198               | 45.1      |
| 97                | 3.9       | 131               | 10.9      | 165               | 24.1      | 199               | 45.9      |
| 98                | 4.0       | 132               | 11.2      | 166               | 24.6      | 200               | 46.7      |
| 99                | 4.2       | 133               | 11.5      | 167               | 25.2      | 201               | 47.5      |
| 100               | 4.3       | 134               | 11.8      | 168               | 25.7      | 202               | 48.3      |
| 101               | 4.5       | 135               | 12.1      | 169               | 26.2      | 203               | 49.1      |
| 102               | 4.6       | 136               | 12.4      | 170               | 26.7      | 204               | 50.0      |
| 103               | 4.8       | 137               | 12.8      | 171               | 27.3      | 205               | 50.8      |
| 104               | 5.0       | 138               | 13.1      | 172               | 27.8      | 206               | 51.7      |
| 105               | 5.1       | 139               | 13.4      | 173               | 28.4      | 207               | 52.5      |
| 106               | 5.3       | 140               | 13.7      | 174               | 29.0      | 208               | 53.4      |
| 107               | 5.5       | 141               | 14.1      | 175               | 29.5      | 209               | 54.3      |
| 108               | 5.6       | 142               | 14.4      | 176               | 30.1      |                   |           |
| 109               | 5.8       | 143               | 14.8      | 177               | 30.7      |                   |           |
| 110               | 6.0       | 144               | 15.1      | 178               | 31.3      |                   |           |
| 111               | 6.2       | 145               | 15.5      | 179               | 31.9      |                   |           |
| 112               | 6.4       | 146               | 15.9      | 180               | 32.5      |                   |           |
| 113               | 6.6       | 147               | 16.2      | 181               | 33.2      |                   |           |

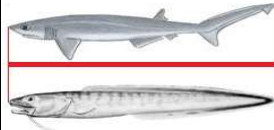
**Common Smooth Hound - *Mustelus mustelus***



| Total Length (mm) | Mass (kg) | Total Length (mm) | Mass (kg) | Total Length (mm) | Mass (kg) | Total Length (mm) | Mass (kg) |
|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|
| 83                | 1.9       | 117               | 6.4       | 151               | 15.6      | 185               | 31.8      |
| 84                | 2.0       | 118               | 6.6       | 152               | 16.0      | 186               | 32.4      |
| 85                | 2.1       | 119               | 6.8       | 153               | 16.4      | 187               | 33.0      |
| 86                | 2.2       | 120               | 7.0       | 154               | 16.8      | 188               | 33.7      |
| 87                | 2.3       | 121               | 7.2       | 155               | 17.1      | 189               | 34.3      |
| 88                | 2.4       | 122               | 7.4       | 156               | 17.5      | 190               | 34.9      |
| 89                | 2.5       | 123               | 7.6       | 157               | 17.9      | 191               | 35.6      |
| 90                | 2.6       | 124               | 7.9       | 158               | 18.3      | 192               | 36.2      |
| 91                | 2.7       | 125               | 8.1       | 159               | 18.7      | 193               | 36.9      |
| 92                | 2.8       | 126               | 8.3       | 160               | 19.1      | 194               | 37.6      |
| 93                | 2.9       | 127               | 8.5       | 161               | 19.6      | 195               | 38.2      |
| 94                | 3.0       | 128               | 8.8       | 162               | 20.0      | 196               | 38.9      |
| 95                | 3.1       | 129               | 9.0       | 163               | 20.4      | 197               | 39.6      |
| 96                | 3.2       | 130               | 9.3       | 164               | 20.9      | 198               | 40.3      |
| 97                | 3.3       | 131               | 9.5       | 165               | 21.3      | 199               | 41.1      |
| 98                | 3.4       | 132               | 9.8       | 166               | 21.8      | 200               | 41.8      |
| 99                | 3.6       | 133               | 10.0      | 167               | 22.2      | 201               | 42.5      |
| 100               | 3.7       | 134               | 10.3      | 168               | 22.7      | 202               | 43.3      |
| 101               | 3.8       | 135               | 10.6      | 169               | 23.2      | 203               | 44.0      |
| 102               | 4.0       | 136               | 10.8      | 170               | 23.7      | 204               | 44.8      |
| 103               | 4.1       | 137               | 11.1      | 171               | 24.2      | 205               | 45.6      |
| 104               | 4.2       | 138               | 11.4      | 172               | 24.7      | 206               | 46.3      |
| 105               | 4.4       | 139               | 11.7      | 173               | 25.2      | 207               | 47.1      |
| 106               | 4.5       | 140               | 12.0      | 174               | 25.7      | 208               | 47.9      |
| 107               | 4.7       | 141               | 12.3      | 175               | 26.2      | 209               | 48.7      |
| 108               | 4.8       | 142               | 12.6      | 176               | 26.7      | 210               | 49.6      |
| 109               | 5.0       | 143               | 12.9      | 177               | 27.3      | 211               | 50.4      |
| 110               | 5.2       | 144               | 13.2      | 178               | 27.8      | 212               | 51.2      |
| 111               | 5.3       | 145               | 13.6      | 179               | 28.4      | 213               | 52.1      |
| 112               | 5.5       | 146               | 13.9      | 180               | 28.9      | 214               | 53.0      |
| 113               | 5.7       | 147               | 14.2      | 181               | 29.5      |                   |           |
| 114               | 5.8       | 148               | 14.6      | 182               | 30.0      |                   |           |
| 115               | 6.0       | 149               | 14.9      | 183               | 30.6      |                   |           |
| 116               | 6.2       | 150               | 15.3      | 184               | 31.2      |                   |           |

## Lesser Sand Shark - *Rhinobatos annulatus*

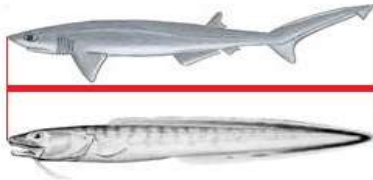
| Total Length (cm) | Mass (kg) | Total Length (cm) | Mass (kg) |
|-------------------|-----------|-------------------|-----------|
| 80                | 1.8       | 116               | 6.0       |
| 81                | 1.9       | 117               | 6.2       |
| 82                | 2.0       | 118               | 6.3       |
| 83                | 2.1       | 119               | 6.5       |
| 84                | 2.2       | 120               | 6.7       |
| 85                | 2.2       | 121               | 6.9       |
| 86                | 2.3       | 122               | 7.0       |
| 87                | 2.4       | 123               | 7.2       |
| 88                | 2.5       | 124               | 7.4       |
| 89                | 2.6       | 125               | 7.6       |
| 90                | 2.7       | 126               | 7.8       |
| 91                | 2.8       | 127               | 8.0       |
| 92                | 2.9       | 128               | 8.2       |
| 93                | 3.0       | 129               | 8.4       |
| 94                | 3.1       | 130               | 8.6       |
| 95                | 3.2       | 131               | 8.8       |
| 96                | 3.3       | 132               | 9.1       |
| 97                | 3.4       | 133               | 9.3       |
| 98                | 3.5       | 134               | 9.5       |
| 99                | 3.6       | 135               | 9.7       |
| 100               | 3.7       | 136               | 10.0      |
| 101               | 3.9       |                   |           |
| 102               | 4.0       |                   |           |
| 103               | 4.1       |                   |           |
| 104               | 4.2       |                   |           |
| 105               | 4.4       |                   |           |
| 106               | 4.5       |                   |           |
| 107               | 4.6       |                   |           |
| 108               | 4.8       |                   |           |
| 109               | 4.9       |                   |           |
| 110               | 5.1       |                   |           |
| 111               | 5.2       |                   |           |
| 112               | 5.4       |                   |           |
| 113               | 5.5       |                   |           |
| 114               | 5.7       |                   |           |
| 115               | 5.8       |                   |           |



## St Joseph - Elephant Fish

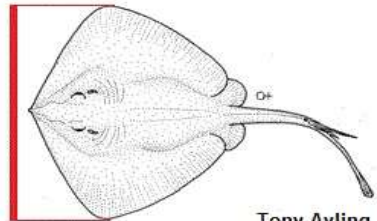
*Callorhinchus capensis*

| Total Length (cm) | Mass (kg) | Total Length (cm) | Mass (kg) |
|-------------------|-----------|-------------------|-----------|
| 63                | 2.0       | 99                | 7.7       |
| 64                | 2.1       | 100               | 8.0       |
| 65                | 2.2       |                   |           |
| 66                | 2.3       |                   |           |
| 67                | 2.4       |                   |           |
| 68                | 2.5       |                   |           |
| 69                | 2.6       |                   |           |
| 70                | 2.7       |                   |           |
| 71                | 2.9       |                   |           |
| 72                | 3.0       |                   |           |
| 73                | 3.1       |                   |           |
| 74                | 3.2       |                   |           |
| 75                | 3.4       |                   |           |
| 76                | 3.5       |                   |           |
| 77                | 3.6       |                   |           |
| 78                | 3.8       |                   |           |
| 79                | 3.9       |                   |           |
| 80                | 4.1       |                   |           |
| 81                | 4.2       |                   |           |
| 82                | 4.4       |                   |           |
| 83                | 4.6       |                   |           |
| 84                | 4.7       |                   |           |
| 85                | 4.9       |                   |           |
| 86                | 5.1       |                   |           |
| 87                | 5.2       |                   |           |
| 88                | 5.4       |                   |           |
| 89                | 5.6       |                   |           |
| 90                | 5.8       |                   |           |
| 91                | 6.0       |                   |           |
| 92                | 6.2       |                   |           |
| 93                | 6.4       |                   |           |
| 94                | 6.6       |                   |           |
| 95                | 6.8       |                   |           |
| 96                | 7.1       |                   |           |
| 97                | 7.3       |                   |           |
| 98                | 7.5       |                   |           |



**Blue Ray - Male - *Dasyatis chrysonota chrysonota***

| Disc Width (cm) | Mass (kg) | Disc Width (cm) | Mass (kg) |
|-----------------|-----------|-----------------|-----------|
| 38              | 1.7       | 73              | 13.3      |
| 39              | 1.8       | 74              | 13.8      |
| 40              | 2.0       | 75              | 14.5      |
| 41              | 2.1       | 76              | 15.1      |
| 42              | 2.3       | 77              | 15.7      |
| 43              | 2.5       | 78              | 16.4      |
| 44              | 2.6       | 79              | 17.1      |
| 45              | 2.8       | 80              | 17.8      |
| 46              | 3.0       | 81              | 18.5      |
| 47              | 3.3       | 82              | 19.2      |
| 48              | 3.5       | 83              | 20.0      |
| 49              | 3.7       | 84              | 20.7      |
| 50              | 4.0       | 85              | 21.5      |
| 51              | 4.2       | 86              | 22.4      |
| 52              | 4.5       | 87              | 23.2      |
| 53              | 4.8       | 88              | 24.1      |
| 54              | 5.1       | 89              | 24.9      |
| 55              | 5.4       | 90              | 25.8      |
| 56              | 5.7       | 91              | 26.8      |
| 57              | 6.0       | 92              | 27.7      |
| 58              | 6.4       | 93              | 28.7      |
| 59              | 6.7       | 94              | 29.7      |
| 60              | 7.1       | 95              | 30.7      |
| 61              | 7.5       | 96              | 31.7      |
| 62              | 7.9       | 97              | 32.8      |
| 63              | 8.3       | 98              | 33.9      |
| 64              | 8.7       | 99              | 35.0      |
| 65              | 9.2       | 100             | 36.1      |
| 66              | 9.6       | 101             | 37.3      |
| 67              | 10.1      | 102             | 38.5      |
| 68              | 10.6      | 103             | 39.7      |
| 69              | 11.1      | 104             | 41.0      |
| 70              | 11.6      | 105             | 42.2      |
| 71              | 12.1      | 106             | 43.5      |
| 72              | 12.7      |                 |           |

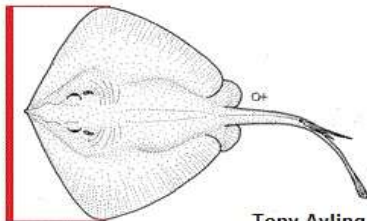


**Tony Ayling**



## Blue Ray - Female - *Dasyatis chrysonota chrysonota*

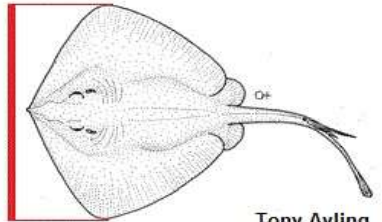
| Disc Width (cm) | Mass (kg) | Disc Width (cm) | Mass (kg) |
|-----------------|-----------|-----------------|-----------|
| 35              | 1.7       | 71              | 16.8      |
| 36              | 1.8       | 72              | 17.5      |
| 37              | 2.0       | 73              | 18.3      |
| 38              | 2.2       | 74              | 19.2      |
| 39              | 2.4       | 75              | 20.0      |
| 40              | 2.6       | 76              | 20.9      |
| 41              | 2.8       | 77              | 21.8      |
| 42              | 3.0       | 78              | 22.8      |
| 43              | 3.3       | 79              | 23.7      |
| 44              | 3.5       | 80              | 24.7      |
| 45              | 3.8       | 81              | 25.7      |
| 46              | 4.1       | 82              | 26.8      |
| 47              | 4.4       | 83              | 27.8      |
| 48              | 4.7       | 84              | 29.0      |
| 49              | 5.0       | 85              | 30.1      |
| 50              | 5.4       | 86              | 31.3      |
| 51              | 5.7       | 87              | 32.4      |
| 52              | 6.1       | 88              | 33.7      |
| 53              | 6.5       | 89              | 34.9      |
| 54              | 6.9       | 90              | 36.2      |
| 55              | 7.3       | 91              | 37.6      |
| 56              | 7.7       | 92              | 38.9      |
| 57              | 8.2       | 93              | 40.3      |
| 58              | 8.7       | 94              | 41.7      |
| 59              | 9.2       | 95              | 43.2      |
| 60              | 9.7       | 96              | 44.7      |
| 61              | 10.2      | 97              | 46.2      |
| 62              | 10.8      | 98              | 47.8      |
| 63              | 11.4      |                 |           |
| 64              | 12.0      |                 |           |
| 65              | 12.6      |                 |           |
| 66              | 13.2      |                 |           |
| 67              | 13.9      |                 |           |
| 68              | 14.6      |                 |           |
| 69              | 15.3      |                 |           |
| 70              | 16.0      |                 |           |



Tony Ayling

## Bull Ray - *Myliobatus aquila*

| Disc Width (cm) | Mass (kg) | Disc Width (cm) | Mass (kg) | Disc Width (cm) | Mass (kg) |
|-----------------|-----------|-----------------|-----------|-----------------|-----------|
| 46              | 1.7       | 82              | 10.1      | 117             | 30.8      |
| 47              | 1.8       | 83              | 10.5      | 118             | 31.7      |
| 48              | 2.0       | 84              | 10.9      | 119             | 32.5      |
| 49              | 2.1       | 85              | 11.3      | 120             | 33.3      |
| 50              | 2.2       | 86              | 11.7      | 121             | 34.2      |
| 51              | 2.4       | 86              | 12.1      | 122             | 35.0      |
| 52              | 2.5       | 87              | 12.6      | 123             | 35.9      |
| 53              | 2.7       | 88              | 13.0      | 124             | 36.8      |
| 54              | 2.8       | 89              | 13.5      | 125             | 37.7      |
| 55              | 3.0       | 90              | 13.9      | 126             | 38.6      |
| 56              | 3.2       | 91              | 14.4      | 127             | 39.6      |
| 57              | 3.3       | 92              | 14.9      | 128             | 40.5      |
| 58              | 3.5       | 93              | 15.4      | 129             | 41.5      |
| 59              | 3.7       | 94              | 15.9      | 130             | 42.5      |
| 60              | 3.9       | 95              | 16.4      | 131             | 43.5      |
| 61              | 4.1       | 96              | 16.9      | 132             | 44.5      |
| 62              | 4.3       | 97              | 17.5      | 133             | 45.5      |
| 63              | 4.5       | 98              | 18.0      | 134             | 46.6      |
| 64              | 4.7       | 99              | 18.6      | 135             | 47.6      |
| 65              | 5.0       | 100             | 19.2      | 136             | 48.7      |
| 66              | 5.2       | 101             | 19.7      | 137             | 49.8      |
| 67              | 5.5       | 102             | 20.3      | 138             | 50.9      |
| 68              | 5.7       | 103             | 21.0      | 139             | 52.0      |
| 69              | 6.0       | 104             | 21.6      | 140             | 53.2      |
| 70              | 6.2       | 105             | 22.2      | 141             | 54.4      |
| 71              | 6.5       | 106             | 22.9      | 142             | 55.5      |
| 72              | 6.8       | 107             | 23.5      | 143             | 56.7      |
| 73              | 7.1       | 108             | 24.2      | 144             | 57.9      |
| 74              | 7.4       | 109             | 24.9      | 145             | 59.2      |
| 75              | 7.7       | 110             | 25.6      |                 |           |
| 76              | 8.0       | 111             | 26.3      |                 |           |
| 77              | 8.4       | 112             | 27.0      |                 |           |
| 78              | 8.7       | 113             | 27.8      |                 |           |
| 79              | 9.0       | 114             | 28.5      |                 |           |
| 80              | 9.4       | 115             | 29.3      |                 |           |
| 81              | 9.8       | 116             | 30.1      |                 |           |



Tony Ayling