

## ratio calculation - % total area vs longitudinal muscle area

| atok   |         | total segment area<br>[μm <sup>2</sup> ] |                    |
|--------|---------|--|--------------------|
| sample | segment | total mean                               | standard deviation |
| 1      | 7-14    | 1174503                                  | 48762              |
|        | 31-38   | 861892                                   | 41846              |
| 2      | 7-14    | 1318672                                  | 187435             |
|        | 31-38   | 1142946                                  | 129988             |
| 3      | 7-14    | 673939                                   | 16782              |
|        | 31-38   | 515599                                   | 39763              |
| 4      | 7-14    | 1433884                                  | 46099              |
|        | 31-38   | 1364230                                  | 46108              |
| 5      | 7-14    | 1580660                                  | 50652              |
|        | 31-38   | 1013707                                  | 45246              |
| 6      | 7-14    | 1513105                                  | 56368              |
|        | 31-38   | 633877                                   | 39455              |
| 7      | 7-14    | 1850524                                  | 188245             |
|        | 31-38   | 1565904                                  | 73193              |

| total dorsal longitudinal muscle (dlm) area<br>[μm <sup>2</sup> ] |                    | % relation<br>total segment area vs total dlm |
|---|--------------------|---|
| total mean  | standard deviation |   |
| 52200   | 6582               | 4,44  |
| 36651   | 5123               | 4,25  |
| 84128   | 13246              | 6,38  |
| 75713   | 10849              | 6,62  |
| 35180   | 3475               | 5,22  |
| 25926   | 4296               | 5,03  |
| 42996   | 4824               | 3,00  |
| 46688   | 3871               | 3,42  |
| 84584   | 10518              | 5,35  |
| 44010   | 8708               | 4,34  |
| 75590   | 4500               | 5,00  |
| 21995   | 1657               | 3,47  |
| 92241   | 8681               | 4,98  |
| 65944   | 10826              | 4,21  |

| total ventral longitudinal muscle (vlm) area<br>[μm <sup>2</sup> ] |                    | % relation<br>total segment area vs total vlm |
|--|--------------------|---|
| total mean   | standard deviation |   |
| 47859  | 3701               | 4,07  |
| 40893  | 2745               | 4,74  |
| 55047  | 4934               | 4,17  |
| 60406  | 5853               | 5,29  |
| 31028  | 2072               | 4,60  |
| 23347  | 4572               | 4,53  |
| 48949  | 5753               | 3,41  |
| 46997  | 4912               | 3,44  |
| 60246  | 6206               | 3,81  |
| 46026  | 9047               | 4,54  |
| 50454  | 2500               | 3,33  |
| 24546  | 2650               | 3,87  |
| 65855  | 4517               | 3,56  |
| 52719  | 3690               | 3,37  |

|  | segment | total mean | standard deviation |
|--|---------|------------|--------------------|
|  | 7-14    | 1363612    | 370790             |
|  | 31-38   | 1014022    | 378576             |

| total mean | standard deviation | mean % relation | standard deviation | total mean | standard deviation | mean % relation | standard deviation |
|------------|--------------------|-----------------|--------------------|------------|--------------------|-----------------|--------------------|
| 66703      | 22806              | 4,91            | 1,03               | 51348      | 11067              | 3,85            | 0,46               |
| 45275      | 19782              | 4,48            | 1,09               | 42133      | 13836              | 4,25            | 0,71               |

## ratio calculation - % total area vs longitudinal muscle area

| female |         | total segment area<br>[μm <sup>2</sup> ] |                    |
|--------|---------|--|--------------------|
| sample | segment | total mean                               | standard deviation |
| 1      | 7-14    | 1109317                                  | 34381              |
|        | 31-38   | 830639                                   | 55082              |
| 2      | 7-14    | 1853722                                  | 76026              |
|        | 31-38   | 1496426                                  | 34282              |
| 3      | 7-14    | 2265208                                  | 67304              |
|        | 31-38   | 1748065                                  | 70106              |
| 4      | 7-14    | 3029957                                  | 82560              |
|        | 31-38   | 1510869                                  | 178904             |
| 5      | 7-14    | 1486409                                  | 112459             |
|        | 31-38   | 1118266                                  | 68323              |
| 6      | 7-14    | 2005352                                  | 68200              |
|        | 31-38   | 2008027                                  | 38049              |
| 7      | 7-14    | 1491610                                  | 86486              |
|        | 31-38   | 1196085                                  | 50646              |
| 8      | 7-14    | 1587377                                  | 86045              |
|        | 31-38   | 1339577                                  | 33915              |

| total dorsal longitudinal muscle (dlm) area<br>[μm <sup>2</sup> ] |                    | % relation<br>total segment area vs total dlm |
|---|--------------------|---|
| total mean  | standard deviation |   |
| 18192   | 1816               | 1,64  |
| 24543   | 6273               | 2,95  |
| 16077   | 1764               | 0,87  |
| 25486   | 1863               | 1,70  |
| 15244   | 2308               | 0,67  |
| 16460   | 2681               | 0,94  |
| 22728   | 4361               | 0,75  |
| 25787   | 4457               | 1,71  |
| 11513   | 1911               | 0,77  |
| 16887   | 2022               | 1,51  |
| 21679   | 4070               | 1,08  |
| 23727   | 3224               | 1,18  |
| 9355  | 2623               | 0,63  |
| 15038   | 2576               | 1,26  |
| 17145   | 5047               | 1,08  |
| 18828   | 3358               | 1,41  |

| total ventral longitudinal muscle (vlm) area<br>[μm <sup>2</sup> ] |                    | % relation<br>total segment area vs total vlm |
|--|--------------------|---|
| total mean   | standard deviation |   |
| 23819  | 3369               | 2,15  |
| 26764  | 2437               | 3,22  |
| 19148  | 3786               | 1,03  |
| 25853  | 1269               | 1,73  |
| 19077  | 3210               | 0,84  |
| 22089  | 3418               | 1,26  |
| 21633  | 3177               | 0,71  |
| 35606  | 4417               | 2,36  |
| 14532  | 2714               | 0,98  |
| 18616  | 1782               | 1,66  |
| 26583  | 3164               | 1,33  |
| 21116  | 4851               | 1,05  |
| 11075  | 1307               | 0,74  |
| 18894  | 2700               | 1,58  |
| 15145  | 2979               | 0,95  |
| 19327  | 2147               | 1,44  |

|  | segment | total mean | standard deviation |
|--|---------|------------|--------------------|
|  | 7-14    | 1853619    | 593653             |
|  | 31-38   | 1405994    | 370507             |

| total mean | standard deviation | mean % relation | standard deviation | total mean | standard deviation | mean % relation | standard deviation |
|------------|--------------------|-----------------|--------------------|------------|--------------------|-----------------|--------------------|
| 16492      | 4576               | 0,94            | 0,33               | 18877      | 5143               | 1,09            | 0,47               |
| 20844      | 4482               | 1,58            | 0,61               | 23533      | 5768               | 1,79            | 0,69               |

## ratio calculation - % total area vs longitudinal muscle area

| male   |         | total segment area<br>[μm <sup>2</sup> ] |                    |
|--------|---------|--|--------------------|
| sample | segment | total mean                               | standard deviation |
| 1      | 7-14    | 1361662                                  | 117623             |
|        | 31-38   | 1669426                                  | 42241              |
| 2      | 7-14    | 1422861                                  | 58894              |
|        | 31-38   | 1294621                                  | 79105              |
| 3      | 7-14    | 1595780                                  | 121114             |
|        | 31-38   | 1147339                                  | 84962              |
| 4      | 7-14    | 2389050                                  | 118873             |
|        | 31-38   | 1577668                                  | 135051             |
| 5      | 7-14    | 1810142                                  | 127568             |
|        | 31-38   | 1381647                                  | 61907              |
| 6      | 7-14    | 1584326                                  | 83065              |
|        | 31-38   | 1322660                                  | 44577              |
| 7      | 7-14    | 1441977                                  | 158505             |
|        | 31-38   | 1589705                                  | 144756             |
| 8      | 7-14    | 2075680                                  | 153607             |
|        | 31-38   | 1408578                                  | 75716              |

| total dorsal longitudinal muscle (dlm) area<br>[μm <sup>2</sup> ] |                    | % relation<br>total segment area vs total dlm |
|---|--------------------|---|
| total mean  | standard deviation |   |
| 13751   | 2842               | 1,01  |
| 30370   | 2234               | 1,82  |
| 10317   | 2210               | 0,73  |
| 27279   | 2543               | 2,11  |
| 18876   | 3508               | 1,18  |
| 36244   | 1831               | 3,16  |
| 32849   | 4793               | 1,37  |
| 45711   | 5322               | 2,90  |
| 52506   | 6499               | 2,90  |
| 39608   | 4709               | 2,87  |
| 40973   | 6232               | 2,59  |
| 35987   | 2227               | 2,72  |
| 25588   | 3028               | 1,77  |
| 42557   | 2883               | 2,68  |
| 25348   | 4694               | 1,22  |
| 34431   | 5009               | 2,44  |

| total ventral longitudinal muscle (vlm) area<br>[μm <sup>2</sup> ] |                    | % relation<br>total segment area vs total vlm |
|--|--------------------|---|
| total mean   | standard deviation |   |
| 13435  | 1928               | 0,99  |
| 24215  | 1373               | 1,45  |
| 9803   | 1191               | 0,69  |
| 27930  | 2097               | 2,16  |
| 21898  | 4189               | 1,37  |
| 32728  | 2602               | 2,85  |
| 31754  | 2838               | 1,33  |
| 40247  | 3080               | 2,55  |
| 37823  | 4131               | 2,09  |
| 36857  | 6622               | 2,67  |
| 37578  | 1538               | 2,37  |
| 26242  | 2415               | 1,98  |
| 24969  | 1648               | 1,73  |
| 33806  | 2500               | 2,13  |
| 21178  | 3599               | 1,02  |
| 28871  | 2211               | 2,05  |

|  | segment | total mean | standard deviation |
|--|---------|------------|--------------------|
|  | 7-14    | 1710185    | 360421             |
|  | 31-38   | 1423955    | 176023             |

| total mean | standard deviation | mean % relation | standard deviation | total mean | standard deviation | mean % relation | standard deviation |
|------------|--------------------|-----------------|--------------------|------------|--------------------|-----------------|--------------------|
| 27526      | 14154              | 1,60            | 0,77               | 24805      | 10399              | 1,45            | 0,58               |
| 36523      | 6076               | 2,59            | 0,44               | 31362      | 5507               | 2,23            | 0,45               |