

## Electronic Supplementary Material

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Title of the article:

Characterisation and classification of binders used in art materials at class and subclass level (†)

Material:

The Table S1 present the full data for all the amino acid composition of the samples included in the collection of natural proteinaceous binders studied in this paper. The raw data obtained were described in a pMol-injected on column basis although expressing the contents of each individual sample as a percentage of the sum of its amino acids.

Table S2 shows the ANOVA results of study according to origin, using LSD as criterion to compare mean values ( $P < 0,05$ ). We only include results for subclasses.

Table S1. Amino acid composition (%) of the samples included in the collection of natural proteinaceous binders

| n° | Sample       | Asp   | Glu   | HOpr | Ser  | Gly  | His  | Arg  | Thr  | Ala   | Pro  | Tyr  | Val  | Met  | Ile  | Leu  | Phe  | Lys  |
|----|--------------|-------|-------|------|------|------|------|------|------|-------|------|------|------|------|------|------|------|------|
| 1  | Alb_Gla_Mll  | 8.61  | 12.44 | 0.13 | 9.42 | 7.37 | 1.83 | 3.80 | 6.48 | 6.37  | 7.03 | 3.36 | 5.88 | 4.93 | 4.28 | 7.03 | 5.84 | 5.21 |
| 2  | Alb_Gla_Mll  | 9.59  | 13.90 | 0.13 | 9.32 | 7.77 | 2.09 | 3.76 | 7.22 | 6.65  | 7.43 | 2.84 | 6.00 | 4.54 | 3.33 | 6.97 | 4.66 | 3.79 |
| 3  | Alb_Gla_Mll  | 8.83  | 13.32 | 0.14 | 8.60 | 7.15 | 1.95 | 4.05 | 7.39 | 7.30  | 6.10 | 3.58 | 8.14 | 4.62 | 3.82 | 7.04 | 4.82 | 3.16 |
| 4  | Alb_Gla_Phe1 | 10.62 | 12.73 | 0.21 | 7.77 | 7.93 | 2.23 | 4.06 | 5.51 | 8.39  | 4.94 | 3.28 | 7.62 | 2.86 | 4.35 | 7.74 | 4.22 | 5.52 |
| 5  | Alb_Gla_Phe1 | 9.31  | 11.91 | 0.22 | 8.21 | 7.66 | 2.34 | 4.23 | 6.00 | 7.66  | 6.92 | 3.53 | 7.23 | 2.80 | 4.20 | 7.24 | 4.94 | 5.60 |
| 6  | Alb_Gla_Phe1 | 9.82  | 12.75 | 0.21 | 7.74 | 8.08 | 1.79 | 4.85 | 6.61 | 8.42  | 6.41 | 3.81 | 8.42 | 2.63 | 4.38 | 6.94 | 3.63 | 3.49 |
| 7  | Alb_Gla_Phe2 | 9.89  | 12.54 | 0.21 | 7.88 | 7.18 | 2.15 | 4.11 | 5.68 | 8.49  | 4.96 | 3.34 | 7.50 | 1.99 | 4.88 | 8.51 | 4.69 | 6.01 |
| 8  | Alb_Gla_Phe2 | 9.42  | 12.04 | 0.21 | 7.60 | 7.38 | 2.07 | 3.89 | 5.91 | 8.13  | 6.07 | 3.49 | 7.33 | 3.36 | 4.27 | 7.73 | 4.83 | 6.27 |
| 9  | Alb_Gla_Phe2 | 9.68  | 12.14 | 0.21 | 8.08 | 8.41 | 1.47 | 3.88 | 6.59 | 9.25  | 7.35 | 3.01 | 8.17 | 2.39 | 5.34 | 7.66 | 3.72 | 2.64 |
| 10 | Alb_Gla_Chk  | 10.31 | 12.60 | 0.21 | 8.30 | 7.32 | 2.19 | 4.42 | 4.63 | 8.99  | 4.41 | 2.60 | 7.31 | 2.80 | 5.36 | 8.51 | 4.83 | 5.19 |
| 11 | Alb_Gla_Chk  | 9.05  | 11.81 | 0.22 | 7.96 | 6.32 | 1.85 | 4.29 | 4.98 | 7.90  | 5.66 | 3.22 | 7.17 | 3.42 | 6.19 | 8.51 | 5.77 | 5.67 |
| 12 | Alb_Gla_Chk  | 10.73 | 13.33 | 0.24 | 8.67 | 7.60 | 1.76 | 5.26 | 5.36 | 10.38 | 6.65 | 2.57 | 7.80 | 0.90 | 4.16 | 8.23 | 1.84 | 4.53 |
| 13 | Alb_Gla_Chld | 9.99  | 12.75 | 0.17 | 8.10 | 6.67 | 2.14 | 4.51 | 4.77 | 9.50  | 4.64 | 2.40 | 7.34 | 2.68 | 5.47 | 8.45 | 4.89 | 5.53 |
| 14 | Alb_Gla_Chld | 9.44  | 12.50 | 0.18 | 8.44 | 6.83 | 2.14 | 4.39 | 5.14 | 8.89  | 6.14 | 2.52 | 7.47 | 2.97 | 5.26 | 7.87 | 5.12 | 4.69 |
| 15 | Alb_Gla_Chld | 10.38 | 13.39 | 0.17 | 8.11 | 6.94 | 1.89 | 4.71 | 5.52 | 9.77  | 5.66 | 2.97 | 8.04 | 2.92 | 4.70 | 6.91 | 4.17 | 3.75 |
| 16 | Alb_Gla_Goo  | 8.85  | 13.09 | 0.24 | 8.96 | 6.63 | 2.15 | 3.55 | 7.14 | 6.93  | 4.66 | 2.72 | 7.08 | 2.82 | 4.97 | 8.55 | 5.88 | 5.78 |
| 17 | Alb_Gla_Goo  | 8.18  | 12.37 | 0.23 | 8.80 | 6.50 | 1.97 | 3.21 | 7.11 | 5.70  | 6.10 | 3.68 | 6.82 | 4.56 | 5.29 | 8.02 | 6.13 | 5.33 |
| 18 | Alb_Gla_Goo  | 9.09  | 13.00 | 0.22 | 8.69 | 7.08 | 1.59 | 3.11 | 7.20 | 6.29  | 5.89 | 3.49 | 8.51 | 4.61 | 5.27 | 7.04 | 5.39 | 3.53 |
| 19 | Alb_Gla_Pgn  | 10.30 | 14.58 | 0.16 | 7.97 | 5.59 | 1.80 | 3.63 | 5.28 | 7.55  | 5.22 | 3.03 | 6.95 | 1.72 | 5.04 | 9.14 | 4.83 | 7.22 |
| 20 | Alb_Gla_Pgn  | 9.15  | 13.27 | 0.17 | 7.93 | 5.45 | 1.74 | 3.77 | 5.21 | 6.42  | 6.45 | 3.64 | 6.71 | 3.04 | 5.49 | 8.52 | 5.51 | 7.52 |
| 21 | Alb_Gla_Pgn  | 9.44  | 14.34 | 0.15 | 7.83 | 5.78 | 1.58 | 3.96 | 5.82 | 7.71  | 6.50 | 3.92 | 7.55 | 2.26 | 4.86 | 8.19 | 4.49 | 5.63 |
| 22 | Alb_Gla_Dck  | 8.79  | 12.98 | 0.09 | 9.30 | 7.25 | 2.35 | 3.65 | 7.26 | 6.32  | 6.38 | 3.60 | 6.15 | 4.32 | 4.43 | 6.68 | 5.26 | 5.22 |
| 23 | Alb_Gla_Dck  | 8.01  | 12.56 | 0.09 | 9.24 | 7.71 | 2.11 | 3.49 | 7.36 | 6.98  | 6.28 | 3.10 | 5.92 | 3.65 | 4.13 | 8.14 | 5.35 | 5.88 |
| 24 | Alb_Gla_Dck  | 7.90  | 12.36 | 0.10 | 8.99 | 7.49 | 2.03 | 3.38 | 7.14 | 6.80  | 6.16 | 3.21 | 6.42 | 4.23 | 4.40 | 8.03 | 5.70 | 5.69 |
| 25 | Alb_Gla_Dck  | 8.91  | 13.45 | 0.09 | 8.63 | 7.27 | 2.25 | 3.83 | 7.57 | 7.44  | 5.51 | 3.28 | 6.94 | 3.75 | 4.07 | 7.41 | 5.07 | 4.53 |
| 26 | Alb_Gla_Trk1 | 9.85  | 12.33 | 0.19 | 8.09 | 7.28 | 2.13 | 4.01 | 5.85 | 7.79  | 4.59 | 3.05 | 6.70 | 2.86 | 5.74 | 8.91 | 4.84 | 5.79 |
| 27 | Alb_Gla_Trk1 | 8.77  | 11.30 | 0.19 | 7.97 | 7.17 | 1.87 | 3.95 | 6.08 | 7.06  | 5.59 | 3.38 | 6.95 | 3.63 | 6.04 | 8.37 | 5.67 | 6.01 |
| 28 | Alb_Gla_Trk1 | 9.86  | 12.38 | 0.18 | 7.91 | 7.71 | 1.88 | 3.96 | 6.40 | 8.01  | 6.29 | 3.76 | 7.79 | 3.07 | 5.09 | 7.43 | 4.25 | 4.03 |
| 29 | Alb_Gla_Pck1 | 10.09 | 12.34 | 0.18 | 7.96 | 7.20 | 2.05 | 3.92 | 5.96 | 7.94  | 4.63 | 3.16 | 6.96 | 2.72 | 5.46 | 8.77 | 4.68 | 6.00 |
| 30 | Alb_Gla_Pck1 | 8.94  | 11.83 | 0.19 | 7.76 | 7.11 | 2.29 | 3.88 | 6.00 | 6.58  | 5.66 | 3.55 | 6.75 | 3.73 | 5.84 | 8.46 | 5.44 | 5.99 |
| 31 | Alb_Gla_Pck1 | 8.76  | 12.03 | 0.18 | 8.12 | 8.53 | 2.13 | 4.39 | 6.79 | 8.14  | 6.18 | 3.21 | 7.99 | 2.62 | 5.24 | 7.55 | 4.21 | 3.92 |
| 32 | Alb_Gla_Trk2 | 10.37 | 12.88 | 0.15 | 8.53 | 6.86 | 2.59 | 4.34 | 5.43 | 8.53  | 4.71 | 3.00 | 6.67 | 2.67 | 5.34 | 7.95 | 4.38 | 5.62 |
| 33 | Alb_Gla_Trk2 | 8.76  | 11.99 | 0.17 | 7.87 | 6.75 | 2.51 | 3.92 | 5.28 | 7.84  | 5.59 | 3.14 | 6.98 | 3.41 | 6.04 | 8.49 | 5.39 | 5.87 |
| 34 | Alb_Gla_Trk2 | 8.32  | 11.87 | 0.16 | 8.33 | 7.52 | 2.24 | 4.17 | 6.09 | 8.83  | 6.05 | 3.63 | 7.87 | 3.06 | 6.00 | 7.61 | 4.45 | 3.80 |
| 35 | Alb_Gla_Pck2 | 10.17 | 12.16 | 0.22 | 8.11 | 7.41 | 2.79 | 4.19 | 6.12 | 7.72  | 4.59 | 3.15 | 6.85 | 2.42 | 5.35 | 8.60 | 4.59 | 5.57 |
| 36 | Alb_Gla_Pck2 | 8.75  | 11.34 | 0.23 | 7.64 | 7.26 | 2.65 | 3.93 | 5.91 | 6.52  | 5.52 | 3.47 | 6.72 | 3.99 | 6.03 | 8.60 | 5.55 | 5.88 |
| 37 | Alb_Gla_Pck2 | 9.51  | 12.28 | 0.22 | 7.69 | 7.89 | 2.01 | 4.26 | 6.56 | 8.00  | 6.16 | 3.81 | 7.66 | 2.85 | 5.20 | 7.64 | 4.22 | 4.04 |
| 38 | Alb_Weg_Mll  | 8.95  | 11.97 | 0.15 | 8.28 | 6.39 | 2.15 | 4.14 | 6.21 | 7.28  | 6.29 | 2.00 | 7.52 | 3.76 | 5.40 | 9.08 | 4.97 | 5.46 |
| 39 | Alb_Weg_Mll  | 8.84  | 11.69 | 0.15 | 8.52 | 6.22 | 2.07 | 3.97 | 6.17 | 7.10  | 4.75 | 3.04 | 7.05 | 4.33 | 5.34 | 9.22 | 5.21 | 6.33 |
| 40 | Alb_Weg_Mll  | 9.20  | 11.97 | 0.14 | 7.99 | 6.52 | 2.21 | 4.29 | 6.22 | 8.00  | 7.77 | 0.97 | 7.94 | 3.18 | 5.42 | 8.88 | 4.71 | 4.58 |
| 41 | Alb_Weg_Phe1 | 8.03  | 11.07 | 0.21 | 9.37 | 7.16 | 2.38 | 4.83 | 5.78 | 8.33  | 5.07 | 3.02 | 7.04 | 2.24 | 5.99 | 9.32 | 4.50 | 5.66 |
| 42 | Alb_Weg_Phe1 | 9.70  | 11.57 | 0.19 | 7.59 | 6.87 | 2.06 | 5.31 | 6.05 | 8.27  | 9.31 | 1.33 | 7.73 | 2.63 | 4.93 | 7.90 | 3.76 | 4.81 |
| 43 | Alb_Weg_Phe2 | 9.07  | 11.49 | 0.18 | 8.02 | 5.48 | 2.20 | 4.16 | 5.63 | 7.62  | 4.19 | 3.95 | 7.63 | 4.08 | 6.01 | 9.36 | 4.82 | 6.13 |
| 44 | Alb_Weg_Phe2 | 9.98  | 12.71 | 0.16 | 8.56 | 6.24 | 2.09 | 4.34 | 5.67 | 8.04  | 4.52 | 3.04 | 7.30 | 2.96 | 5.15 | 8.74 | 4.46 | 6.01 |
| 45 | Alb_Weg_Phe2 | 8.64  | 11.79 | 0.24 | 7.90 | 6.44 | 1.97 | 4.69 | 6.09 | 7.69  | 9.67 | 0.85 | 7.76 | 2.85 | 5.08 | 8.31 | 4.49 | 5.54 |
| 46 | Alb_Weg_Chk  | 8.64  | 11.54 | 0.20 | 8.23 | 5.73 | 1.97 | 4.57 | 5.63 | 8.04  | 4.25 | 3.34 | 7.78 | 3.12 | 6.67 | 9.80 | 4.90 | 5.58 |
| 47 | Alb_Weg_Chk  | 8.72  | 10.90 | 0.20 | 8.57 | 6.60 | 2.23 | 4.75 | 5.12 | 8.21  | 4.45 | 2.61 | 7.69 | 3.08 | 6.21 | 9.66 | 4.71 | 6.28 |

|    |              |       |       |      |      |      |      |      |      |      |       |      |      |      |      |      |      |      |
|----|--------------|-------|-------|------|------|------|------|------|------|------|-------|------|------|------|------|------|------|------|
| 48 | Alb_Weg_Chk  | 9.72  | 11.60 | 0.19 | 7.33 | 6.73 | 1.99 | 5.35 | 5.14 | 8.94 | 7.99  | 0.81 | 8.26 | 2.29 | 5.64 | 8.86 | 4.30 | 4.88 |
| 49 | Alb_Weg_Chd  | 9.58  | 12.24 | 0.19 | 8.57 | 6.28 | 1.97 | 4.59 | 4.85 | 8.62 | 4.18  | 2.68 | 6.97 | 2.61 | 5.90 | 9.47 | 4.66 | 6.64 |
| 50 | Alb_Weg_Chd  | 9.58  | 11.96 | 0.19 | 8.15 | 5.92 | 2.02 | 4.51 | 4.78 | 8.27 | 4.27  | 2.59 | 7.52 | 3.31 | 6.27 | 9.67 | 4.75 | 6.26 |
| 51 | Alb_Weg_Chd  | 9.93  | 12.42 | 0.18 | 7.58 | 6.39 | 1.89 | 5.10 | 4.89 | 9.16 | 8.09  | 1.06 | 8.05 | 2.34 | 5.12 | 8.42 | 4.13 | 5.25 |
| 52 | Alb_Weg_Goo  | 8.16  | 11.14 | 0.26 | 8.32 | 4.98 | 2.08 | 4.13 | 5.79 | 7.01 | 3.78  | 3.43 | 7.75 | 4.72 | 6.36 | 9.75 | 5.33 | 7.01 |
| 53 | Alb_Weg_Goo  | 8.98  | 12.18 | 0.25 | 9.01 | 6.07 | 2.24 | 4.16 | 6.27 | 7.40 | 5.01  | 2.57 | 7.28 | 3.18 | 5.38 | 9.15 | 4.59 | 6.28 |
| 54 | Alb_Weg_Goo  | 9.57  | 12.13 | 0.16 | 7.17 | 6.99 | 2.68 | 5.00 | 5.68 | 8.59 | 8.85  | 0.67 | 7.40 | 2.31 | 4.94 | 7.95 | 4.26 | 5.64 |
| 55 | Alb_Weg_Pgn  | 8.46  | 12.04 | 0.21 | 8.26 | 5.99 | 2.67 | 4.31 | 5.47 | 8.04 | 7.62  | 1.78 | 7.66 | 2.09 | 5.34 | 9.05 | 4.24 | 6.77 |
| 56 | Alb_Weg_Pgn  | 8.19  | 11.80 | 0.21 | 8.85 | 6.20 | 2.69 | 4.36 | 5.61 | 7.91 | 5.83  | 2.71 | 7.30 | 2.20 | 5.26 | 9.22 | 4.26 | 7.39 |
| 57 | Alb_Weg_Pgn  | 9.05  | 12.30 | 0.21 | 7.69 | 5.78 | 2.65 | 4.27 | 5.33 | 7.94 | 9.43  | 0.84 | 8.03 | 1.99 | 5.43 | 8.89 | 4.22 | 5.94 |
| 58 | Alb_Weg_Dck  | 12.23 | 14.01 | 0.33 | 8.26 | 5.21 | 1.68 | 3.73 | 6.00 | 7.33 | 4.15  | 3.03 | 7.02 | 1.89 | 4.80 | 8.78 | 5.11 | 6.44 |
| 59 | Alb_Weg_Dck  | 9.58  | 12.04 | 0.23 | 7.56 | 6.77 | 2.50 | 4.26 | 5.65 | 8.28 | 6.66  | 0.68 | 8.29 | 2.57 | 6.27 | 9.10 | 4.62 | 4.94 |
| 60 | Alb_Weg_Dck  | 9.52  | 11.97 | 0.23 | 7.53 | 6.74 | 2.48 | 4.23 | 5.61 | 8.24 | 7.17  | 0.68 | 8.25 | 2.56 | 6.24 | 9.05 | 4.59 | 4.92 |
| 61 | Alb_Weg_Dck  | 9.52  | 11.96 | 0.23 | 7.51 | 6.73 | 2.48 | 4.23 | 5.61 | 8.23 | 7.22  | 0.68 | 8.24 | 2.56 | 6.23 | 9.04 | 4.59 | 4.91 |
| 62 | Alb_Weg_Trk1 | 9.40  | 11.59 | 0.24 | 8.14 | 5.66 | 2.03 | 4.18 | 5.05 | 7.33 | 3.58  | 3.57 | 7.29 | 4.38 | 6.57 | 9.62 | 4.75 | 6.62 |
| 63 | Alb_Weg_Trk1 | 9.64  | 12.45 | 0.24 | 8.80 | 6.42 | 2.11 | 4.33 | 5.64 | 7.73 | 4.87  | 2.61 | 6.67 | 2.77 | 5.54 | 9.14 | 4.27 | 6.77 |
| 64 | Alb_Weg_Trk1 | 8.62  | 11.22 | 0.23 | 7.69 | 7.01 | 1.97 | 4.84 | 5.45 | 8.07 | 9.83  | 1.12 | 7.07 | 2.37 | 5.74 | 8.58 | 4.26 | 5.94 |
| 65 | Alb_Weg_Pck1 | 9.92  | 12.31 | 0.17 | 7.96 | 6.51 | 2.21 | 4.36 | 5.50 | 7.42 | 4.28  | 3.52 | 7.23 | 3.30 | 6.14 | 8.67 | 4.62 | 5.88 |
| 66 | Alb_Weg_Pck1 | 9.32  | 11.55 | 0.20 | 7.69 | 6.54 | 1.96 | 4.16 | 6.55 | 7.42 | 4.31  | 2.83 | 7.10 | 3.50 | 6.21 | 9.59 | 4.93 | 6.12 |
| 67 | Alb_Weg_Pck1 | 9.70  | 11.19 | 0.19 | 7.86 | 6.54 | 2.10 | 4.28 | 6.52 | 7.44 | 4.30  | 3.21 | 7.19 | 3.40 | 6.18 | 9.12 | 4.78 | 6.00 |
| 68 | Alb_Weg_Trk2 | 7.38  | 10.08 | 0.26 | 8.70 | 6.32 | 2.83 | 5.30 | 5.73 | 8.30 | 8.54  | 2.06 | 7.13 | 1.90 | 6.20 | 9.09 | 4.49 | 5.70 |
| 69 | Alb_Weg_Trk2 | 7.59  | 10.29 | 0.28 | 9.58 | 6.32 | 2.52 | 5.20 | 5.88 | 8.34 | 6.01  | 2.37 | 6.71 | 1.90 | 6.58 | 9.66 | 4.72 | 6.08 |
| 70 | Alb_Weg_Trk2 | 7.54  | 9.91  | 0.25 | 7.64 | 6.34 | 3.11 | 5.40 | 5.62 | 8.27 | 10.84 | 1.79 | 7.52 | 1.90 | 5.88 | 8.34 | 4.29 | 5.36 |
| 71 | Alb_Weg_Pck2 | 12.24 | 14.16 | 0.23 | 7.84 | 4.54 | 1.78 | 4.25 | 6.09 | 6.90 | 4.12  | 3.26 | 7.22 | 2.54 | 6.02 | 8.66 | 4.55 | 5.59 |
| 72 | Alb_Weg_Pck2 | 9.78  | 12.23 | 0.21 | 8.46 | 6.42 | 2.74 | 4.73 | 5.87 | 7.79 | 4.57  | 2.83 | 6.95 | 2.85 | 5.46 | 8.77 | 4.06 | 6.28 |
| 73 | Alb_Weg_Pck2 | 9.39  | 11.80 | 0.23 | 7.42 | 6.64 | 2.45 | 4.17 | 5.53 | 8.12 | 8.48  | 0.67 | 8.13 | 2.52 | 6.15 | 8.92 | 4.53 | 4.85 |
| 74 | Alb_Yol_Mll  | 8.39  | 10.71 | 0.19 | 8.48 | 5.22 | 2.43 | 5.19 | 5.54 | 7.51 | 4.40  | 3.73 | 7.03 | 3.51 | 6.25 | 9.81 | 4.35 | 7.26 |
| 75 | Alb_Yol_Mll  | 8.80  | 11.01 | 0.18 | 7.61 | 7.31 | 2.79 | 5.76 | 5.75 | 8.06 | 6.81  | 2.98 | 5.72 | 2.44 | 4.51 | 9.10 | 3.78 | 7.38 |
| 76 | Alb_Yol_Mll  | 9.08  | 10.87 | 0.19 | 4.59 | 6.58 | 2.57 | 6.00 | 4.71 | 8.56 | 9.15  | 2.92 | 7.33 | 2.02 | 5.21 | 8.92 | 3.83 | 7.49 |
| 77 | Alb_Yol_Phe1 | 8.90  | 11.09 | 0.20 | 6.96 | 6.27 | 2.72 | 6.46 | 5.26 | 8.31 | 8.09  | 2.73 | 6.62 | 2.24 | 5.24 | 8.80 | 3.75 | 6.35 |
| 78 | Alb_Yol_Phe1 | 8.31  | 10.89 | 0.20 | 8.69 | 6.67 | 2.83 | 6.34 | 5.78 | 7.98 | 6.73  | 2.80 | 5.86 | 2.28 | 5.14 | 9.03 | 3.82 | 6.66 |
| 79 | Alb_Yol_Phe1 | 9.43  | 11.20 | 0.20 | 5.15 | 5.99 | 2.59 | 6.52 | 4.94 | 8.57 | 9.63  | 2.63 | 7.34 | 2.17 | 5.29 | 8.72 | 3.65 | 5.98 |
| 80 | Alb_Yol_Phe2 | 8.43  | 9.86  | 0.23 | 5.97 | 6.89 | 2.13 | 6.15 | 4.92 | 7.97 | 10.78 | 2.64 | 7.67 | 2.26 | 5.59 | 8.40 | 3.96 | 6.14 |
| 81 | Alb_Yol_Phe2 | 8.20  | 10.30 | 0.26 | 5.99 | 7.00 | 1.71 | 6.18 | 4.63 | 8.21 | 11.32 | 2.29 | 7.88 | 1.86 | 5.56 | 8.69 | 3.75 | 6.17 |
| 82 | Alb_Yol_Phe2 | 8.30  | 10.07 | 0.25 | 5.90 | 6.96 | 1.98 | 6.19 | 4.73 | 8.10 | 10.88 | 2.52 | 7.78 | 2.12 | 5.60 | 8.55 | 3.90 | 6.17 |
| 83 | Alb_Yol_Chk  | 9.23  | 10.76 | 0.20 | 6.42 | 6.56 | 2.47 | 6.01 | 5.01 | 8.58 | 8.47  | 2.15 | 6.89 | 1.99 | 5.30 | 9.40 | 3.84 | 6.73 |
| 84 | Alb_Yol_Chk  | 9.10  | 10.84 | 0.20 | 7.68 | 6.83 | 2.71 | 5.86 | 5.21 | 8.33 | 7.17  | 2.82 | 6.06 | 2.09 | 5.11 | 9.62 | 3.80 | 6.57 |
| 85 | Alb_Yol_Chk  | 9.36  | 10.67 | 0.21 | 5.10 | 6.27 | 2.21 | 6.17 | 4.79 | 8.84 | 9.82  | 1.46 | 7.76 | 1.89 | 5.49 | 9.16 | 3.89 | 6.90 |
| 86 | Alb_Yol_Chd  | 9.22  | 10.90 | 0.18 | 6.45 | 6.68 | 2.50 | 6.42 | 5.07 | 8.44 | 7.73  | 2.71 | 6.85 | 1.95 | 5.11 | 9.23 | 3.85 | 6.70 |
| 87 | Alb_Yol_Chd  | 9.42  | 11.53 | 0.18 | 7.68 | 6.85 | 2.22 | 6.16 | 5.21 | 8.30 | 6.76  | 2.74 | 6.17 | 2.12 | 4.89 | 9.65 | 3.64 | 6.48 |
| 88 | Alb_Yol_Chd  | 9.07  | 10.32 | 0.18 | 5.26 | 6.54 | 2.69 | 6.71 | 4.95 | 8.62 | 8.73  | 2.70 | 7.54 | 1.79 | 5.35 | 8.86 | 3.73 | 6.94 |
| 89 | Alb_Yol_Goo  | 8.64  | 10.80 | 0.14 | 6.12 | 6.82 | 2.57 | 6.02 | 5.40 | 8.28 | 7.45  | 2.87 | 6.35 | 2.36 | 5.55 | 9.30 | 4.08 | 7.25 |
| 90 | Alb_Yol_Goo  | 8.69  | 10.61 | 0.15 | 7.25 | 6.36 | 2.79 | 5.68 | 5.62 | 8.07 | 6.42  | 3.07 | 5.98 | 2.87 | 5.66 | 9.73 | 4.05 | 7.00 |
| 91 | Alb_Yol_Goo  | 8.91  | 10.75 | 0.14 | 4.90 | 7.23 | 2.36 | 6.33 | 5.05 | 8.86 | 8.39  | 2.67 | 6.67 | 1.88 | 5.42 | 8.88 | 4.09 | 7.47 |
| 92 | Alb_Yol_Pgn  | 9.11  | 11.55 | 0.17 | 8.82 | 5.02 | 2.53 | 4.52 | 4.93 | 7.80 | 4.44  | 3.24 | 7.05 | 3.03 | 6.20 | 9.78 | 3.97 | 7.87 |
| 93 | Alb_Yol_Pgn  | 9.10  | 11.64 | 0.16 | 7.75 | 6.48 | 2.90 | 4.98 | 5.00 | 8.30 | 6.97  | 2.46 | 5.86 | 2.09 | 4.99 | 9.35 | 3.64 | 8.32 |
| 94 | Alb_Yol_Pgn  | 9.11  | 10.78 | 0.18 | 4.93 | 5.99 | 2.40 | 5.27 | 4.66 | 9.38 | 9.01  | 2.59 | 7.50 | 1.96 | 5.68 | 9.15 | 3.75 | 7.67 |
| 95 | Alb_Yol_Dck  | 9.24  | 11.55 | 0.13 | 6.91 | 5.28 | 2.32 | 5.23 | 5.63 | 7.66 | 4.53  | 3.82 | 6.93 | 3.08 | 6.11 | 9.83 | 4.29 | 7.46 |
| 96 | Alb_Yol_Dck  | 9.13  | 11.25 | 0.14 | 5.83 | 5.84 | 2.42 | 5.70 | 5.25 | 8.16 | 6.34  | 3.50 | 7.14 | 2.54 | 5.83 | 9.63 | 4.18 | 7.14 |
| 97 | Alb_Yol_Dck  | 9.12  | 11.50 | 0.14 | 6.33 | 5.58 | 2.37 | 5.48 | 5.46 | 7.83 | 5.44  | 3.68 | 6.94 | 2.82 | 6.06 | 9.67 | 4.25 | 7.33 |
| 98 | Alb_Yol_Trk1 | 8.92  | 10.96 | 0.13 | 6.62 | 6.32 | 2.80 | 6.37 | 5.25 | 8.24 | 6.96  | 2.83 | 6.31 | 2.50 | 5.49 | 8.81 | 3.88 | 7.61 |

|     |              |       |       |      |      |      |      |      |      |      |       |      |      |      |      |       |      |      |
|-----|--------------|-------|-------|------|------|------|------|------|------|------|-------|------|------|------|------|-------|------|------|
| 99  | Alb_Yol_Trk1 | 8.74  | 10.94 | 0.13 | 7.89 | 6.39 | 2.72 | 6.01 | 5.46 | 7.89 | 6.26  | 2.93 | 5.80 | 2.78 | 5.42 | 9.28  | 3.85 | 7.50 |
| 100 | Alb_Yol_Trk1 | 9.10  | 10.98 | 0.13 | 5.38 | 6.25 | 2.87 | 6.72 | 5.05 | 8.58 | 7.64  | 2.74 | 6.80 | 2.23 | 5.57 | 8.36  | 3.90 | 7.73 |
| 101 | Alb_Yol_Pck1 | 9.34  | 11.16 | 0.13 | 6.03 | 6.05 | 2.29 | 6.26 | 5.21 | 8.30 | 6.62  | 2.91 | 6.36 | 2.57 | 5.76 | 9.50  | 3.96 | 7.53 |
| 102 | Alb_Yol_Pck1 | 9.14  | 10.85 | 0.13 | 7.38 | 6.12 | 2.35 | 6.07 | 5.49 | 7.75 | 5.82  | 3.10 | 6.00 | 3.03 | 5.64 | 9.61  | 4.26 | 7.27 |
| 103 | Alb_Yol_Pck1 | 9.44  | 11.29 | 0.13 | 4.93 | 5.98 | 2.24 | 6.45 | 4.93 | 8.61 | 7.43  | 2.73 | 6.72 | 2.12 | 5.88 | 9.39  | 3.96 | 7.79 |
| 104 | Alb_Yol_Trk2 | 8.89  | 10.60 | 0.15 | 7.07 | 6.06 | 2.44 | 6.17 | 5.37 | 7.98 | 6.26  | 2.96 | 6.96 | 2.61 | 5.78 | 9.16  | 4.13 | 7.40 |
| 105 | Alb_Yol_Trk2 | 8.85  | 11.36 | 0.15 | 8.74 | 4.92 | 2.02 | 5.68 | 5.44 | 7.59 | 4.27  | 3.33 | 7.23 | 3.11 | 6.31 | 9.65  | 4.17 | 7.19 |
| 106 | Alb_Yol_Trk2 | 8.88  | 10.55 | 0.15 | 7.36 | 6.19 | 2.60 | 6.12 | 5.53 | 7.78 | 6.02  | 2.90 | 6.24 | 2.75 | 5.56 | 9.74  | 4.15 | 7.47 |
| 107 | Alb_Yol_Trk2 | 8.91  | 10.22 | 0.15 | 5.04 | 6.59 | 2.69 | 6.72 | 4.93 | 8.55 | 8.56  | 2.63 | 7.00 | 1.95 | 5.45 | 9.01  | 4.07 | 7.53 |
| 108 | Alb_Yol_Pck2 | 9.05  | 11.32 | 0.19 | 6.50 | 6.59 | 2.30 | 6.33 | 4.96 | 8.05 | 7.30  | 2.88 | 6.47 | 2.06 | 5.57 | 9.09  | 4.20 | 7.15 |
| 109 | Alb_Yol_Pck2 | 9.19  | 12.01 | 0.18 | 7.59 | 6.42 | 2.46 | 6.13 | 5.40 | 7.95 | 6.23  | 2.72 | 5.83 | 2.31 | 5.21 | 9.43  | 3.93 | 6.99 |
| 110 | Alb_Yol_Pck2 | 8.91  | 10.85 | 0.19 | 5.07 | 6.77 | 2.13 | 6.52 | 4.52 | 8.15 | 8.38  | 2.78 | 7.12 | 1.81 | 5.76 | 9.00  | 4.47 | 7.58 |
| 111 | Cas_Dnk      | 14.42 | 16.98 | 0.20 | 6.65 | 4.27 | 1.27 | 3.88 | 6.18 | 5.73 | 8.21  | 2.57 | 5.74 | 0.87 | 5.01 | 9.15  | 3.28 | 5.59 |
| 112 | Cas_Dnk      | 14.17 | 16.25 | 0.21 | 5.50 | 4.84 | 1.47 | 3.80 | 5.56 | 6.03 | 7.29  | 2.41 | 6.13 | 2.21 | 4.88 | 9.31  | 3.33 | 6.62 |
| 113 | Cas_Dnk      | 10.78 | 14.78 | 0.25 | 4.85 | 5.25 | 1.98 | 4.48 | 5.87 | 6.88 | 8.14  | 2.42 | 7.50 | 1.39 | 5.57 | 10.59 | 3.76 | 5.50 |
| 114 | Cas_Cap_Gra1 | 8.60  | 23.08 | 0.17 | 5.56 | 1.97 | 1.98 | 1.92 | 4.58 | 3.70 | 13.55 | 2.65 | 7.06 | 1.56 | 4.60 | 8.93  | 3.87 | 6.22 |
| 115 | Cas_Cap_Gra1 | 8.38  | 21.35 | 0.16 | 6.20 | 3.24 | 2.71 | 2.44 | 5.10 | 3.81 | 13.01 | 2.55 | 6.68 | 1.70 | 4.12 | 8.55  | 3.78 | 6.21 |
| 116 | Cas_Cap_Gra1 | 5.73  | 18.68 | 0.20 | 5.76 | 3.39 | 2.59 | 2.51 | 5.92 | 4.47 | 14.10 | 3.04 | 8.29 | 1.34 | 5.44 | 9.73  | 3.81 | 4.99 |
| 117 | Cas_Cap_Gra2 | 8.09  | 23.45 | 0.20 | 5.36 | 2.06 | 1.81 | 1.83 | 3.79 | 3.80 | 13.62 | 2.93 | 6.75 | 1.64 | 4.65 | 9.61  | 3.90 | 6.51 |
| 118 | Cas_Cap_Gra2 | 8.86  | 22.37 | 0.18 | 6.18 | 3.29 | 1.63 | 2.05 | 3.96 | 3.56 | 12.90 | 2.84 | 6.48 | 1.89 | 3.96 | 9.02  | 4.04 | 6.80 |
| 119 | Cas_Cap_Gra2 | 8.55  | 22.81 | 0.19 | 5.78 | 2.70 | 1.72 | 1.94 | 3.88 | 3.67 | 13.25 | 2.88 | 6.61 | 1.77 | 4.29 | 9.31  | 3.90 | 6.75 |
| 120 | Cas_Cap_Gra3 | 8.47  | 23.31 | 0.15 | 5.53 | 1.54 | 2.12 | 1.79 | 5.34 | 3.63 | 14.57 | 2.69 | 7.28 | 1.41 | 4.43 | 7.90  | 3.82 | 6.03 |
| 121 | Cas_Cap_Gra3 | 6.95  | 20.41 | 0.17 | 5.65 | 2.10 | 2.18 | 1.99 | 5.63 | 3.95 | 15.29 | 2.77 | 7.91 | 1.29 | 4.85 | 8.60  | 4.07 | 6.18 |
| 122 | Cas_Cap_Gra3 | 5.24  | 17.58 | 0.20 | 5.78 | 2.84 | 2.24 | 2.24 | 5.97 | 4.34 | 15.08 | 2.87 | 8.69 | 1.12 | 5.38 | 9.74  | 4.37 | 6.32 |
| 123 | Cas_Cap_Grm  | 9.54  | 21.97 | 0.16 | 6.05 | 2.39 | 2.05 | 2.00 | 5.67 | 4.30 | 13.45 | 2.98 | 6.46 | 1.05 | 4.69 | 7.95  | 3.68 | 5.60 |
| 124 | Cas_Cap_Grm  | 9.37  | 21.42 | 0.16 | 6.31 | 2.78 | 2.09 | 2.09 | 5.09 | 4.45 | 12.85 | 2.95 | 6.36 | 1.46 | 4.22 | 8.12  | 3.72 | 6.55 |
| 125 | Cas_Cap_Grm  | 9.46  | 21.71 | 0.16 | 6.18 | 2.59 | 2.07 | 2.05 | 5.38 | 4.38 | 13.24 | 2.97 | 6.42 | 1.18 | 4.46 | 8.04  | 3.63 | 6.08 |
| 126 | Cas_Cap_Pyr1 | 8.74  | 24.26 | 0.13 | 6.00 | 1.82 | 2.13 | 1.90 | 5.07 | 3.63 | 14.69 | 2.82 | 7.35 | 0.13 | 3.71 | 8.43  | 3.88 | 5.29 |
| 127 | Cas_Cap_Pyr1 | 9.11  | 22.03 | 0.12 | 5.08 | 2.39 | 2.49 | 2.10 | 5.36 | 3.94 | 13.44 | 2.71 | 7.73 | 1.93 | 4.11 | 7.98  | 3.72 | 5.73 |
| 128 | Cas_Cap_Pyr1 | 5.72  | 17.84 | 0.16 | 4.74 | 2.90 | 2.66 | 2.38 | 5.39 | 4.59 | 14.81 | 2.82 | 8.50 | 1.74 | 5.32 | 9.70  | 4.35 | 6.40 |
| 129 | Cas_Cap_Pyr2 | 8.60  | 23.83 | 0.13 | 5.46 | 1.76 | 2.01 | 1.87 | 4.74 | 3.39 | 13.74 | 3.06 | 6.90 | 1.58 | 4.39 | 8.27  | 3.82 | 6.47 |
| 130 | Cas_Cap_Pyr2 | 7.78  | 19.61 | 0.15 | 5.03 | 2.55 | 2.63 | 2.18 | 5.14 | 3.61 | 13.26 | 2.94 | 7.49 | 2.40 | 5.07 | 9.15  | 4.19 | 6.82 |
| 131 | Cas_Cap_Pyr2 | 7.92  | 21.60 | 0.14 | 5.30 | 2.09 | 2.31 | 2.03 | 4.97 | 3.52 | 13.90 | 3.02 | 7.23 | 1.97 | 4.68 | 8.74  | 4.02 | 6.55 |
| 132 | Cas_Cap_Mal1 | 8.09  | 23.45 | 0.20 | 5.36 | 2.06 | 1.81 | 1.83 | 3.79 | 3.80 | 13.62 | 2.93 | 6.75 | 1.64 | 4.65 | 9.61  | 3.90 | 6.51 |
| 133 | Cas_Cap_Mal1 | 9.54  | 21.97 | 0.16 | 6.05 | 2.39 | 2.05 | 2.00 | 5.67 | 4.30 | 13.45 | 2.98 | 6.46 | 1.05 | 4.69 | 7.95  | 3.68 | 5.60 |
| 134 | Cas_Cap_Mal1 | 8.60  | 23.83 | 0.13 | 5.46 | 1.76 | 2.01 | 1.87 | 4.74 | 3.39 | 13.74 | 3.06 | 6.90 | 1.58 | 4.39 | 8.27  | 3.82 | 6.47 |
| 135 | Cas_Cap_Mal2 | 8.26  | 23.48 | 0.13 | 5.73 | 2.03 | 1.89 | 1.89 | 4.45 | 3.45 | 14.11 | 2.99 | 7.06 | 1.67 | 4.39 | 8.45  | 3.86 | 6.18 |
| 136 | Cas_Cap_Mal2 | 8.56  | 21.32 | 0.13 | 4.95 | 2.66 | 1.84 | 1.92 | 4.87 | 3.69 | 13.65 | 2.75 | 7.27 | 2.12 | 4.34 | 8.92  | 4.09 | 6.93 |
| 137 | Cas_Cap_Mal2 | 8.53  | 22.45 | 0.13 | 5.34 | 2.34 | 1.87 | 1.90 | 4.65 | 3.56 | 13.60 | 3.02 | 7.16 | 1.89 | 4.36 | 8.68  | 3.97 | 6.54 |
| 138 | Cas_Cap_Man1 | 8.32  | 23.49 | 0.20 | 5.58 | 1.55 | 1.93 | 1.73 | 4.61 | 3.43 | 15.07 | 2.81 | 6.96 | 1.51 | 4.50 | 8.54  | 3.76 | 6.02 |
| 139 | Cas_Cap_Man1 | 9.05  | 22.06 | 0.20 | 5.04 | 2.50 | 2.08 | 1.79 | 4.71 | 3.62 | 13.64 | 2.60 | 6.86 | 1.81 | 4.16 | 8.85  | 3.93 | 7.09 |
| 140 | Cas_Cap_Man1 | 8.78  | 23.20 | 0.20 | 5.29 | 2.04 | 2.03 | 1.78 | 4.71 | 2.65 | 14.25 | 2.74 | 6.92 | 1.68 | 4.38 | 8.85  | 3.88 | 6.62 |
| 141 | Cas_Cap_Man2 | 8.34  | 23.57 | 0.22 | 5.42 | 0.54 | 1.96 | 1.81 | 4.80 | 3.41 | 14.57 | 3.12 | 7.15 | 1.44 | 4.67 | 8.79  | 3.94 | 6.25 |
| 142 | Cas_Cap_Man2 | 8.90  | 21.74 | 0.22 | 4.96 | 2.65 | 1.85 | 2.00 | 4.62 | 3.73 | 13.57 | 2.88 | 6.94 | 1.99 | 4.04 | 8.73  | 3.90 | 7.28 |
| 143 | Cas_Cap_Man2 | 8.53  | 22.47 | 0.22 | 5.19 | 1.73 | 1.90 | 1.90 | 4.71 | 3.67 | 14.15 | 3.00 | 7.04 | 1.72 | 4.35 | 8.75  | 3.92 | 6.76 |
| 144 | Cas_Hmn1     | 14.12 | 17.91 | 0.17 | 5.38 | 4.66 | 1.74 | 2.95 | 4.55 | 5.54 | 10.74 | 2.34 | 5.67 | 0.17 | 5.13 | 9.48  | 3.49 | 5.96 |
| 145 | Cas_Hmn1     | 11.55 | 14.15 | 0.18 | 5.03 | 5.96 | 3.42 | 4.30 | 6.08 | 7.19 | 10.16 | 2.11 | 5.29 | 0.68 | 4.87 | 9.39  | 3.36 | 6.27 |
| 146 | Cas_Hmn1     | 10.32 | 14.47 | 0.22 | 3.80 | 5.34 | 2.50 | 3.42 | 4.90 | 6.71 | 10.76 | 2.50 | 7.34 | 0.87 | 5.54 | 10.93 | 3.96 | 6.43 |
| 147 | Cas_Hmn2     | 11.71 | 11.26 | 0.27 | 7.78 | 8.26 | 2.39 | 4.37 | 8.10 | 6.78 | 9.12  | 2.29 | 6.13 | 0.27 | 2.64 | 8.79  | 3.62 | 6.21 |
| 148 | Cas_Hmn2     | 9.38  | 11.18 | 0.35 | 6.57 | 8.30 | 2.17 | 4.74 | 7.98 | 7.82 | 8.71  | 2.59 | 7.85 | 0.35 | 3.08 | 10.01 | 4.06 | 4.84 |
| 149 | Cas_Ovi_Seg1 | 8.95  | 22.70 | 0.25 | 6.30 | 2.60 | 1.89 | 2.52 | 4.29 | 4.16 | 12.11 | 3.08 | 6.30 | 1.51 | 3.91 | 8.32  | 3.78 | 7.31 |

|     |               |      |       |      |      |      |      |      |      |      |       |      |      |      |      |      |      |      |
|-----|---------------|------|-------|------|------|------|------|------|------|------|-------|------|------|------|------|------|------|------|
| 150 | Cas_Ovi_Seg1  | 8.79 | 22.33 | 0.25 | 5.81 | 2.60 | 2.17 | 2.20 | 4.06 | 4.05 | 12.80 | 3.07 | 6.72 | 1.64 | 4.15 | 8.49 | 3.87 | 7.02 |
| 151 | Cas_Ovi_Seg2  | 8.01 | 23.58 | 0.19 | 5.08 | 1.77 | 1.92 | 2.02 | 4.08 | 4.23 | 13.85 | 3.17 | 6.55 | 1.73 | 4.51 | 8.76 | 3.70 | 6.84 |
| 152 | Cas_Ovi_Seg2  | 9.21 | 21.85 | 0.15 | 6.05 | 3.28 | 2.48 | 2.60 | 4.36 | 4.40 | 11.84 | 3.33 | 6.35 | 1.81 | 4.46 | 8.05 | 3.51 | 6.26 |
| 153 | Cas_Ovi_Seg2  | 7.26 | 19.79 | 0.17 | 5.83 | 3.53 | 2.40 | 2.54 | 4.64 | 5.21 | 13.50 | 4.08 | 7.70 | 1.49 | 5.15 | 8.82 | 3.25 | 4.64 |
| 154 | Cas_Ovi_Mer1  | 8.60 | 23.65 | 0.16 | 5.49 | 2.34 | 1.89 | 2.04 | 3.60 | 3.78 | 13.40 | 3.19 | 6.32 | 1.86 | 4.43 | 8.99 | 3.70 | 6.57 |
| 155 | Cas_Ovi_Mer1  | 8.89 | 21.76 | 0.15 | 6.01 | 3.61 | 2.50 | 2.59 | 4.12 | 4.05 | 11.57 | 3.08 | 6.57 | 1.75 | 4.25 | 8.69 | 3.61 | 6.81 |
| 156 | Cas_Ovi_Mer1  | 8.93 | 22.53 | 0.16 | 5.67 | 3.11 | 2.10 | 2.33 | 3.96 | 3.88 | 12.59 | 3.14 | 6.37 | 1.80 | 4.34 | 8.84 | 3.66 | 6.60 |
| 157 | Cas_Ovi_Mer2  | 8.65 | 21.60 | 0.15 | 5.81 | 2.85 | 2.65 | 2.41 | 4.38 | 4.37 | 12.13 | 3.28 | 6.65 | 1.86 | 4.45 | 8.60 | 3.70 | 6.45 |
| 158 | Cas_Ovi_Mer2  | 9.23 | 22.06 | 0.15 | 6.03 | 3.11 | 2.17 | 2.40 | 4.25 | 4.25 | 11.95 | 2.74 | 6.58 | 1.79 | 4.44 | 8.42 | 3.69 | 6.73 |
| 159 | Cas_Ovi_Mer2  | 9.30 | 24.33 | 0.16 | 5.59 | 2.58 | 2.00 | 2.24 | 3.55 | 4.12 | 13.10 | 3.64 | 6.24 | 1.79 | 4.44 | 8.13 | 3.18 | 5.61 |
| 160 | Cas_Ovi_Mer3  | 8.83 | 21.88 | 0.17 | 5.76 | 3.06 | 2.36 | 2.32 | 4.14 | 4.18 | 11.78 | 3.48 | 6.26 | 1.80 | 4.46 | 8.35 | 3.78 | 7.39 |
| 161 | Cas_Ovi_Mer3  | 9.22 | 23.05 | 0.20 | 5.49 | 2.82 | 2.18 | 2.28 | 3.84 | 4.16 | 12.26 | 3.57 | 6.37 | 1.80 | 4.46 | 8.34 | 3.48 | 6.49 |
| 162 | Cas_Ovi_Maj   | 8.01 | 23.58 | 0.19 | 5.08 | 1.77 | 1.92 | 2.02 | 4.08 | 4.23 | 13.85 | 3.17 | 6.55 | 1.73 | 4.51 | 8.76 | 3.70 | 6.84 |
| 163 | Cas_Ovi_Maj   | 8.70 | 21.97 | 0.17 | 5.75 | 2.86 | 2.59 | 2.28 | 4.47 | 4.13 | 12.73 | 3.15 | 6.78 | 1.73 | 4.08 | 8.16 | 3.62 | 6.84 |
| 164 | Cas_Ovi_Man   | 8.64 | 23.68 | 0.14 | 5.57 | 2.33 | 2.08 | 1.99 | 3.74 | 3.99 | 13.77 | 3.13 | 6.27 | 1.80 | 4.20 | 8.47 | 3.64 | 6.57 |
| 165 | Cas_Ovi_Man   | 8.59 | 21.43 | 0.14 | 5.84 | 3.40 | 2.44 | 2.53 | 4.45 | 4.28 | 12.10 | 3.11 | 6.65 | 1.80 | 4.27 | 8.54 | 3.80 | 6.63 |
| 166 | Cas_Ovi_Man   | 8.63 | 22.71 | 0.16 | 5.56 | 2.88 | 2.27 | 2.27 | 4.10 | 4.14 | 12.77 | 3.12 | 6.47 | 1.80 | 4.24 | 8.38 | 3.84 | 6.66 |
| 167 | Cas_Ovi_Lch1  | 8.80 | 22.82 | 0.14 | 5.98 | 2.90 | 2.07 | 2.26 | 3.93 | 4.52 | 13.47 | 3.36 | 5.85 | 1.46 | 4.55 | 8.09 | 3.59 | 6.21 |
| 168 | Cas_Ovi_Lch1  | 8.25 | 21.50 | 0.12 | 5.87 | 2.95 | 2.16 | 2.36 | 4.10 | 5.01 | 12.96 | 3.69 | 6.48 | 1.90 | 4.71 | 8.54 | 3.52 | 5.89 |
| 169 | Cas_Ovi_Lch1  | 7.53 | 19.82 | 0.15 | 5.75 | 3.12 | 2.25 | 2.62 | 4.27 | 5.26 | 12.79 | 4.02 | 7.30 | 2.36 | 5.00 | 8.89 | 3.43 | 5.44 |
| 170 | Cas_Ovi_Lch2  | 7.95 | 20.17 | 0.12 | 6.11 | 3.05 | 2.14 | 2.46 | 4.28 | 4.89 | 13.15 | 3.67 | 7.03 | 1.53 | 4.58 | 9.08 | 3.67 | 6.11 |
| 171 | Cas_Ovi_Lch2  | 8.45 | 20.63 | 0.15 | 6.06 | 2.84 | 2.07 | 2.36 | 4.25 | 4.57 | 12.93 | 3.52 | 6.92 | 1.01 | 4.61 | 8.86 | 3.94 | 6.85 |
| 172 | Cas_Ovi_Lch2  | 7.35 | 19.46 | 0.14 | 5.76 | 3.24 | 2.27 | 2.55 | 4.29 | 5.04 | 13.30 | 4.09 | 7.29 | 2.31 | 4.64 | 9.25 | 3.55 | 5.46 |
| 173 | Cas_Ovi_Chu1  | 9.02 | 23.14 | 0.14 | 5.43 | 2.30 | 2.04 | 2.11 | 3.84 | 4.27 | 12.57 | 3.25 | 6.73 | 1.68 | 4.76 | 8.46 | 3.60 | 6.65 |
| 174 | Cas_Ovi_Chu1  | 8.27 | 20.64 | 0.14 | 6.16 | 3.53 | 2.51 | 2.37 | 4.19 | 4.24 | 11.49 | 3.09 | 6.70 | 2.08 | 5.17 | 8.74 | 4.05 | 6.61 |
| 175 | Cas_Ovi_Chu1  | 7.05 | 19.21 | 0.16 | 5.60 | 2.99 | 2.22 | 2.32 | 3.99 | 4.52 | 12.62 | 3.98 | 7.41 | 2.98 | 5.55 | 9.61 | 4.00 | 5.79 |
| 176 | Cas_Ovi_Chu2  | 8.16 | 20.55 | 0.47 | 5.87 | 3.26 | 2.31 | 2.61 | 4.23 | 4.53 | 12.07 | 3.79 | 6.85 | 2.47 | 5.22 | 8.48 | 3.59 | 5.55 |
| 177 | Cas_Ovi_Chu2  | 9.21 | 21.85 | 0.15 | 6.05 | 3.28 | 2.48 | 2.60 | 4.36 | 4.40 | 11.84 | 3.33 | 6.35 | 1.81 | 4.46 | 8.05 | 3.51 | 6.26 |
| 178 | Cas_Ovi_Chu2  | 7.31 | 19.60 | 0.17 | 5.86 | 3.07 | 2.16 | 2.49 | 4.15 | 4.76 | 12.88 | 4.37 | 7.66 | 2.10 | 5.69 | 9.38 | 3.63 | 4.72 |
| 179 | Cas_Ovi_Cas_1 | 8.16 | 20.70 | 0.16 | 5.82 | 3.01 | 2.08 | 2.34 | 4.19 | 4.34 | 12.34 | 3.16 | 7.24 | 2.47 | 4.85 | 9.17 | 3.87 | 6.09 |
| 180 | Cas_Ovi_Cas_1 | 9.26 | 22.32 | 0.16 | 6.01 | 2.94 | 1.84 | 2.20 | 4.01 | 4.09 | 12.04 | 2.11 | 6.83 | 1.78 | 4.42 | 8.82 | 3.89 | 7.26 |
| 181 | Cas_Ovi_Cas_1 | 7.06 | 19.40 | 0.17 | 5.63 | 2.99 | 2.22 | 2.38 | 4.21 | 4.56 | 12.79 | 4.20 | 7.71 | 3.10 | 5.27 | 9.64 | 3.80 | 4.85 |
| 182 | Cas_Ovi_Cas_2 | 9.07 | 23.19 | 0.16 | 5.42 | 2.10 | 1.91 | 2.08 | 3.60 | 4.26 | 12.97 | 3.16 | 6.61 | 1.68 | 4.73 | 8.86 | 3.73 | 6.46 |
| 183 | Cas_Ovi_Cas_2 | 9.12 | 20.05 | 0.18 | 5.66 | 2.21 | 2.07 | 2.30 | 3.91 | 4.56 | 13.45 | 3.47 | 6.68 | 1.57 | 4.98 | 9.07 | 3.89 | 6.81 |
| 184 | Cas_Ovi_Cas_2 | 9.06 | 22.05 | 0.16 | 5.51 | 2.17 | 2.09 | 2.36 | 3.94 | 4.43 | 13.00 | 3.54 | 6.30 | 1.36 | 4.89 | 8.66 | 3.79 | 6.69 |
| 185 | Cas_Ovi_Awa1  | 8.53 | 22.52 | 0.17 | 5.77 | 2.45 | 1.91 | 2.00 | 3.97 | 4.09 | 13.37 | 3.18 | 6.61 | 1.31 | 4.82 | 9.21 | 3.91 | 6.19 |
| 186 | Cas_Ovi_Awa1  | 9.04 | 21.81 | 0.16 | 5.95 | 3.27 | 2.34 | 2.57 | 4.10 | 4.23 | 12.10 | 2.85 | 6.41 | 1.81 | 4.19 | 8.69 | 3.90 | 6.57 |
| 187 | Cas_Ovi_Awa1  | 8.84 | 22.17 | 0.17 | 5.86 | 2.87 | 2.13 | 2.29 | 4.04 | 4.21 | 12.63 | 2.95 | 6.51 | 1.68 | 4.50 | 8.95 | 3.79 | 6.39 |
| 188 | Cas_Ovi_Awa2  | 8.95 | 23.50 | 0.17 | 5.46 | 1.89 | 2.04 | 2.13 | 4.20 | 4.36 | 12.44 | 3.50 | 6.23 | 1.56 | 4.78 | 8.33 | 3.67 | 6.79 |
| 189 | Cas_Ovi_Awa2  | 9.53 | 22.29 | 0.14 | 6.12 | 3.12 | 2.56 | 2.66 | 4.44 | 4.55 | 11.90 | 3.31 | 6.21 | 1.80 | 4.13 | 7.67 | 3.44 | 6.14 |
| 190 | Cas_Ovi_Awa2  | 9.22 | 22.74 | 0.15 | 5.79 | 2.54 | 2.31 | 2.31 | 4.81 | 4.44 | 12.09 | 3.47 | 6.19 | 1.68 | 4.41 | 7.94 | 3.47 | 6.41 |
| 191 | Cas_Ovi_Blz   | 8.80 | 22.99 | 0.16 | 5.64 | 2.15 | 2.06 | 2.22 | 3.94 | 4.37 | 12.84 | 3.54 | 6.31 | 1.34 | 4.83 | 8.52 | 3.74 | 6.56 |
| 192 | Cas_Ovi_Blz   | 8.44 | 20.77 | 0.16 | 6.34 | 3.04 | 2.05 | 2.37 | 4.22 | 4.37 | 13.02 | 3.61 | 6.60 | 1.04 | 4.71 | 8.43 | 3.93 | 6.90 |
| 193 | Cas_Ovi_Blz   | 7.26 | 19.79 | 0.17 | 5.83 | 3.53 | 2.40 | 2.54 | 4.64 | 5.21 | 13.50 | 4.08 | 7.70 | 1.49 | 5.15 | 8.82 | 3.25 | 4.64 |
| 194 | Cas_Bov_Fri1  | 8.99 | 23.97 | 0.17 | 5.56 | 2.16 | 1.93 | 2.25 | 3.78 | 3.70 | 12.16 | 3.75 | 6.38 | 1.69 | 4.75 | 8.53 | 3.86 | 6.38 |
| 195 | Cas_Bov_Fri1  | 6.71 | 21.77 | 0.16 | 6.00 | 3.18 | 2.35 | 2.27 | 4.22 | 4.28 | 12.90 | 3.52 | 7.44 | 2.13 | 5.16 | 9.09 | 3.52 | 5.31 |
| 196 | Cas_Bov_Fri1  | 7.93 | 22.35 | 0.17 | 5.82 | 2.69 | 2.15 | 2.27 | 4.03 | 4.01 | 12.53 | 3.66 | 6.96 | 1.93 | 4.99 | 8.87 | 3.76 | 5.88 |
| 197 | Cas_Bov_Fri2  | 8.31 | 24.08 | 0.14 | 5.51 | 2.36 | 2.08 | 2.20 | 3.70 | 3.48 | 12.39 | 3.71 | 6.09 | 1.81 | 4.78 | 8.69 | 3.99 | 6.67 |
| 198 | Cas_Bov_Fri2  | 6.37 | 19.51 | 0.15 | 6.10 | 3.29 | 2.63 | 2.52 | 4.51 | 4.22 | 12.62 | 3.91 | 7.50 | 2.16 | 5.34 | 9.59 | 3.94 | 5.64 |
| 199 | Cas_Bov_Fri2  | 7.43 | 21.93 | 0.14 | 5.80 | 2.81 | 2.35 | 2.36 | 4.09 | 3.89 | 12.38 | 3.89 | 6.72 | 1.98 | 4.95 | 9.20 | 3.89 | 6.18 |
| 200 | Cas_Bov_Hol1  | 6.99 | 20.72 | 0.22 | 5.91 | 3.21 | 2.58 | 2.26 | 4.06 | 3.69 | 12.95 | 4.03 | 6.75 | 1.61 | 5.04 | 9.14 | 4.03 | 6.81 |

|     |                  |      |       |       |      |       |      |      |      |       |       |      |      |      |      |      |      |      |
|-----|------------------|------|-------|-------|------|-------|------|------|------|-------|-------|------|------|------|------|------|------|------|
| 201 | Cas_Bov_Hol1     | 7.92 | 22.38 | 0.23  | 5.76 | 2.78  | 2.32 | 2.27 | 4.19 | 3.72  | 12.54 | 3.73 | 6.51 | 1.74 | 4.85 | 8.83 | 3.89 | 6.36 |
| 202 | Cas_Bov_Hol1     | 8.49 | 22.46 | 0.20  | 5.99 | 3.16  | 2.58 | 2.15 | 3.76 | 3.26  | 12.16 | 4.30 | 5.99 | 1.50 | 4.47 | 8.67 | 3.88 | 6.99 |
| 203 | Cas_Bov_Hol2     | 8.71 | 23.12 | 0.19  | 5.61 | 2.45  | 2.15 | 2.09 | 3.96 | 3.85  | 12.13 | 3.52 | 6.53 | 1.62 | 4.68 | 8.91 | 3.94 | 6.54 |
| 204 | Cas_Bov_Hol2     | 8.63 | 22.45 | 0.20  | 5.91 | 3.16  | 2.57 | 2.15 | 3.76 | 3.26  | 12.16 | 4.30 | 5.92 | 1.58 | 4.47 | 8.67 | 3.88 | 6.93 |
| 205 | Cas_Bov_Hol2     | 8.73 | 22.76 | 0.19  | 5.82 | 2.91  | 2.35 | 2.11 | 3.86 | 3.56  | 12.13 | 3.89 | 6.30 | 1.45 | 4.57 | 8.73 | 3.91 | 6.72 |
| 206 | Cas_Bov_Brn      | 8.80 | 24.36 | 0.16  | 5.55 | 2.60  | 1.98 | 2.22 | 3.47 | 3.35  | 12.83 | 3.39 | 6.14 | 1.73 | 4.59 | 8.64 | 3.78 | 6.40 |
| 207 | Cas_Bov_Brn      | 8.53 | 23.87 | 0.14  | 5.51 | 2.36  | 2.08 | 2.20 | 3.70 | 3.48  | 12.39 | 3.71 | 6.09 | 1.81 | 4.78 | 8.69 | 3.99 | 6.67 |
| 208 | Cas_Bov_Jer      | 7.69 | 23.46 | 0.16  | 5.69 | 2.37  | 2.13 | 2.35 | 3.93 | 3.74  | 13.93 | 3.45 | 5.96 | 1.62 | 5.02 | 8.50 | 4.00 | 6.02 |
| 209 | Cas_Bov_Jer      | 8.36 | 21.88 | 0.15  | 5.96 | 3.12  | 2.27 | 2.75 | 4.35 | 3.80  | 11.63 | 3.51 | 6.65 | 1.88 | 4.74 | 8.46 | 3.89 | 6.60 |
| 210 | Cas_Bov_Jer      | 8.09 | 23.13 | 0.17  | 5.61 | 2.39  | 2.12 | 2.21 | 4.68 | 3.76  | 13.01 | 3.46 | 6.17 | 1.61 | 4.83 | 8.62 | 3.94 | 6.20 |
| 211 | Col_Mam_Cap_sk   | 6.60 | 8.65  | 8.26  | 3.04 | 34.86 | 0.35 | 4.52 | 1.29 | 9.78  | 13.02 | 0.23 | 0.53 | 0.23 | 0.70 | 2.44 | 1.63 | 3.86 |
| 212 | Col_Mam_Cap_sk   | 4.25 | 7.78  | 8.69  | 2.49 | 34.40 | 0.81 | 5.36 | 2.16 | 11.08 | 13.79 | 0.37 | 2.14 | 0.19 | 0.77 | 2.33 | 1.39 | 1.98 |
| 213 | Col_Mam_Cap_sk   | 5.32 | 8.18  | 8.50  | 2.74 | 34.41 | 0.81 | 4.99 | 1.77 | 10.59 | 13.45 | 0.21 | 1.41 | 0.21 | 0.68 | 2.38 | 1.50 | 2.83 |
| 214 | Col_Mam_Cap_bon1 | 5.86 | 8.57  | 8.11  | 2.76 | 36.49 | 1.42 | 4.68 | 1.08 | 9.97  | 11.88 | 0.30 | 0.30 | 0.39 | 0.91 | 1.72 | 1.56 | 3.98 |
| 215 | Col_Mam_Cap_bon1 | 3.29 | 7.63  | 8.83  | 2.33 | 36.35 | 0.52 | 5.02 | 1.68 | 11.35 | 12.72 | 0.34 | 1.24 | 0.34 | 1.03 | 2.67 | 1.82 | 2.84 |
| 216 | Col_Mam_Cap_bon1 | 4.85 | 8.15  | 8.46  | 2.42 | 36.37 | 1.32 | 4.85 | 1.36 | 10.51 | 12.12 | 0.32 | 0.90 | 0.37 | 0.97 | 2.10 | 1.68 | 3.23 |
| 217 | Col_Mam_Cap_bon2 | 6.37 | 9.90  | 7.54  | 3.62 | 35.54 | 0.36 | 4.43 | 1.31 | 9.77  | 11.54 | 0.24 | 0.85 | 0.24 | 0.73 | 2.48 | 1.21 | 3.85 |
| 218 | Col_Mam_Cap_bon2 | 4.80 | 9.01  | 7.83  | 3.60 | 34.26 | 1.15 | 4.42 | 1.44 | 9.79  | 13.81 | 0.44 | 1.45 | 0.66 | 0.72 | 2.12 | 1.49 | 3.00 |
| 219 | Col_Mam_Cap_bon2 | 4.95 | 8.79  | 8.41  | 3.50 | 34.27 | 0.74 | 4.59 | 1.63 | 10.19 | 12.98 | 0.53 | 2.11 | 0.49 | 0.74 | 2.47 | 1.48 | 2.10 |
| 220 | Col_Mam_Cap_car1 | 5.39 | 7.63  | 9.06  | 2.83 | 34.88 | 1.61 | 5.05 | 1.93 | 9.96  | 13.51 | 0.22 | 0.22 | 0.22 | 0.66 | 2.04 | 1.70 | 3.08 |
| 221 | Col_Mam_Cap_car1 | 3.83 | 7.26  | 10.08 | 2.40 | 36.54 | 0.36 | 5.00 | 1.55 | 11.18 | 13.16 | 0.24 | 1.61 | 0.24 | 0.72 | 2.37 | 1.34 | 2.13 |
| 222 | Col_Mam_Cap_car1 | 3.85 | 7.18  | 8.84  | 3.09 | 33.22 | 1.34 | 5.04 | 1.70 | 10.35 | 14.98 | 0.51 | 2.41 | 0.68 | 0.85 | 2.24 | 1.60 | 2.13 |
| 223 | Col_Mam_Cap_car2 | 5.80 | 7.98  | 9.08  | 2.67 | 36.31 | 0.31 | 4.56 | 1.25 | 10.40 | 13.13 | 0.21 | 0.75 | 0.21 | 0.63 | 1.89 | 1.57 | 3.24 |
| 224 | Col_Mam_Cap_car2 | 3.42 | 7.49  | 9.30  | 2.50 | 36.41 | 0.31 | 5.08 | 1.71 | 11.47 | 13.39 | 0.21 | 1.57 | 0.21 | 0.75 | 2.33 | 1.54 | 2.30 |
| 225 | Col_Mam_Cap_car2 | 4.74 | 7.90  | 9.23  | 2.59 | 36.34 | 0.32 | 4.74 | 1.49 | 11.06 | 13.17 | 0.21 | 1.05 | 0.21 | 0.63 | 2.12 | 1.56 | 2.63 |
| 226 | Col_Mam_Cap_car3 | 3.98 | 9.15  | 7.91  | 2.67 | 34.42 | 0.55 | 4.88 | 2.12 | 11.01 | 11.95 | 0.37 | 1.95 | 0.37 | 1.13 | 3.27 | 1.89 | 2.39 |
| 227 | Col_Mam_Cap_car3 | 6.75 | 9.89  | 7.05  | 3.20 | 34.28 | 1.68 | 4.41 | 1.59 | 9.36  | 11.39 | 0.35 | 0.35 | 0.35 | 1.04 | 2.23 | 1.91 | 4.17 |
| 228 | Col_Mam_Cap_car4 | 4.07 | 7.43  | 9.24  | 2.52 | 35.96 | 0.28 | 4.90 | 1.64 | 11.29 | 12.28 | 0.77 | 2.02 | 0.19 | 1.15 | 2.57 | 1.58 | 2.09 |
| 229 | Col_Mam_Cap_car4 | 4.19 | 7.43  | 9.95  | 3.02 | 33.66 | 0.28 | 4.64 | 2.19 | 11.17 | 12.03 | 0.68 | 2.42 | 0.84 | 1.29 | 2.77 | 1.65 | 1.78 |
| 230 | Col_Mam_Cap_car4 | 4.35 | 8.35  | 9.17  | 2.99 | 34.48 | 0.97 | 5.00 | 1.75 | 10.75 | 12.93 | 0.36 | 2.09 | 0.56 | 0.72 | 2.15 | 1.22 | 2.16 |
| 231 | Col_Mam_Cap_car5 | 3.87 | 7.75  | 9.40  | 3.03 | 34.05 | 0.99 | 4.98 | 1.66 | 11.04 | 13.28 | 0.39 | 1.90 | 0.32 | 0.96 | 2.44 | 1.66 | 2.26 |
| 232 | Col_Mam_Cap_car5 | 4.08 | 7.30  | 9.44  | 2.31 | 34.65 | 0.35 | 5.14 | 1.85 | 11.73 | 12.80 | 0.23 | 2.04 | 0.44 | 0.89 | 2.62 | 1.77 | 2.36 |
| 233 | Col_Mam_Cap_car5 | 3.46 | 7.97  | 9.45  | 3.72 | 33.85 | 1.15 | 4.89 | 1.78 | 10.53 | 13.86 | 0.44 | 1.80 | 0.21 | 1.04 | 2.30 | 1.34 | 2.20 |
| 234 | Col_Mam_Rab_sk1  | 6.54 | 8.80  | 8.18  | 2.58 | 33.15 | 0.42 | 4.44 | 1.75 | 10.16 | 11.66 | 0.28 | 2.42 | 0.56 | 1.36 | 2.52 | 1.52 | 3.66 |
| 235 | Col_Mam_Rab_sk1  | 5.21 | 9.17  | 8.19  | 2.55 | 31.58 | 0.45 | 4.73 | 2.00 | 10.42 | 11.91 | 0.30 | 2.68 | 0.76 | 1.40 | 3.47 | 1.49 | 3.72 |
| 236 | Col_Mam_Rab_sk1  | 3.55 | 7.32  | 8.77  | 2.59 | 30.78 | 0.49 | 5.23 | 2.36 | 11.30 | 12.40 | 0.33 | 3.08 | 1.03 | 1.48 | 3.64 | 1.94 | 3.71 |
| 237 | Col_Mam_Rab_sk2  | 5.35 | 8.65  | 9.37  | 2.68 | 35.52 | 0.31 | 4.22 | 1.17 | 10.09 | 12.66 | 0.21 | 1.65 | 0.21 | 0.82 | 2.06 | 1.44 | 3.60 |
| 238 | Col_Mam_Rab_sk2  | 6.28 | 8.24  | 6.49  | 2.68 | 35.84 | 0.31 | 5.25 | 1.34 | 10.30 | 13.39 | 0.21 | 1.34 | 0.21 | 0.62 | 1.85 | 1.54 | 4.12 |
| 239 | Col_Mam_Rab_sk2  | 4.42 | 6.75  | 8.84  | 2.21 | 35.22 | 0.37 | 5.89 | 1.60 | 11.41 | 12.27 | 0.25 | 1.96 | 0.49 | 0.97 | 2.56 | 1.63 | 3.16 |
| 240 | Col_Mam_Rab_sk3  | 5.05 | 8.64  | 9.18  | 2.39 | 36.35 | 0.30 | 4.48 | 1.16 | 9.73  | 12.80 | 0.20 | 1.69 | 0.20 | 0.95 | 2.38 | 1.42 | 3.07 |
| 241 | Col_Mam_Rab_sk3  | 5.81 | 7.66  | 9.24  | 2.63 | 35.94 | 0.29 | 4.80 | 1.39 | 10.48 | 13.07 | 0.19 | 1.15 | 0.19 | 0.58 | 1.55 | 1.38 | 3.64 |
| 242 | Col_Mam_Rab_sk3  | 4.29 | 7.10  | 9.15  | 1.98 | 35.10 | 0.37 | 5.00 | 1.49 | 11.32 | 12.86 | 0.25 | 2.13 | 0.66 | 0.96 | 2.56 | 1.63 | 3.16 |
| 243 | Col_Mam_Rab_Bon1 | 4.84 | 8.78  | 6.45  | 2.69 | 37.28 | 0.72 | 4.48 | 1.61 | 11.11 | 10.93 | 0.54 | 1.43 | 0.54 | 1.08 | 2.33 | 1.61 | 3.58 |
| 244 | Col_Mam_Rab_Bon1 | 4.14 | 8.38  | 9.28  | 2.24 | 34.63 | 0.90 | 4.50 | 1.64 | 11.86 | 10.72 | 0.60 | 0.60 | 0.60 | 0.90 | 3.26 | 1.80 | 3.95 |
| 245 | Col_Mam_Rab_car1 | 4.98 | 8.39  | 9.34  | 2.13 | 37.33 | 0.34 | 4.36 | 1.16 | 10.33 | 12.53 | 0.23 | 1.79 | 0.29 | 0.69 | 2.12 | 1.38 | 2.59 |
| 246 | Col_Mam_Rab_car1 | 6.16 | 8.54  | 8.87  | 3.17 | 34.82 | 0.32 | 4.72 | 1.25 | 10.61 | 11.99 | 0.21 | 1.08 | 0.29 | 0.63 | 2.05 | 1.68 | 3.60 |
| 247 | Col_Mam_Rab_car1 | 4.22 | 7.64  | 9.14  | 2.75 | 35.03 | 0.35 | 4.99 | 1.65 | 11.40 | 12.34 | 0.23 | 1.94 | 0.29 | 1.17 | 2.76 | 1.75 | 2.36 |
| 248 | Col_Mam_Ovi_sk1  | 5.72 | 9.37  | 7.56  | 3.09 | 33.59 | 1.60 | 5.01 | 2.07 | 10.16 | 12.59 | 0.22 | 0.81 | 0.22 | 0.66 | 2.32 | 1.53 | 3.47 |
| 249 | Col_Mam_Ovi_sk1  | 4.53 | 8.92  | 7.93  | 2.59 | 32.72 | 0.35 | 5.26 | 2.10 | 11.31 | 12.25 | 0.23 | 2.05 | 0.34 | 1.09 | 3.07 | 1.79 | 3.46 |
| 250 | Col_Mam_Ovi_sk1  | 5.45 | 10.17 | 9.15  | 2.17 | 32.55 | 0.37 | 3.96 | 1.78 | 9.63  | 13.68 | 0.25 | 2.00 | 0.25 | 1.72 | 2.73 | 1.35 | 2.80 |
| 251 | Col_Mam_Ovi_sk2  | 6.62 | 9.68  | 7.36  | 3.03 | 33.08 | 0.33 | 4.83 | 1.61 | 10.40 | 12.27 | 0.22 | 0.99 | 0.22 | 0.55 | 2.74 | 1.77 | 4.30 |

|     |                  |      |       |       |      |       |      |      |      |       |       |      |      |      |      |      |      |      |
|-----|------------------|------|-------|-------|------|-------|------|------|------|-------|-------|------|------|------|------|------|------|------|
| 252 | Col_Mam_Ovi_sk2  | 4.15 | 7.94  | 7.75  | 2.60 | 33.02 | 0.95 | 5.21 | 2.14 | 11.13 | 13.83 | 0.16 | 2.59 | 0.29 | 1.17 | 3.07 | 1.76 | 2.28 |
| 253 | Col_Mam_Ovi_sk2  | 5.14 | 8.70  | 7.48  | 2.79 | 33.18 | 0.88 | 5.07 | 1.87 | 10.75 | 13.09 | 0.19 | 1.87 | 0.26 | 0.91 | 2.81 | 1.87 | 3.14 |
| 254 | Col_Mam_Ovi_bon3 | 6.22 | 8.75  | 8.26  | 2.90 | 33.98 | 1.34 | 5.09 | 1.85 | 10.90 | 11.47 | 0.21 | 0.96 | 0.21 | 0.64 | 2.11 | 1.59 | 3.50 |
| 255 | Col_Mam_Ovi_bon3 | 4.42 | 7.89  | 9.09  | 2.84 | 32.05 | 1.02 | 5.66 | 2.26 | 10.49 | 12.22 | 0.62 | 2.89 | 0.36 | 1.00 | 2.68 | 1.70 | 2.82 |
| 256 | Col_Mam_Ovi_bon3 | 5.10 | 8.23  | 8.72  | 1.90 | 35.57 | 0.37 | 4.73 | 1.59 | 10.29 | 13.99 | 0.25 | 1.77 | 0.25 | 0.82 | 2.24 | 1.33 | 2.84 |
| 257 | Col_Mam_Ovi_bon1 | 6.70 | 8.11  | 7.70  | 3.00 | 35.10 | 0.61 | 4.54 | 1.11 | 10.14 | 11.49 | 0.41 | 0.41 | 0.41 | 1.22 | 2.29 | 1.62 | 5.16 |
| 258 | Col_Mam_Ovi_bon1 | 4.93 | 10.37 | 8.12  | 2.54 | 33.16 | 0.61 | 4.77 | 1.95 | 10.76 | 10.96 | 0.41 | 1.45 | 0.41 | 1.22 | 3.36 | 1.82 | 3.16 |
| 259 | Col_Mam_Ovi_bon1 | 4.39 | 8.13  | 8.71  | 2.51 | 32.18 | 1.90 | 4.41 | 1.98 | 9.45  | 14.14 | 0.39 | 2.19 | 0.39 | 1.27 | 2.97 | 1.62 | 3.37 |
| 260 | Col_Mam_Ovi_bon2 | 5.97 | 8.59  | 8.63  | 2.67 | 35.63 | 0.38 | 4.42 | 1.30 | 10.27 | 12.66 | 0.25 | 0.69 | 0.25 | 0.75 | 2.15 | 1.70 | 3.70 |
| 261 | Col_Mam_Ovi_bon2 | 3.58 | 7.33  | 8.93  | 2.24 | 34.74 | 0.99 | 5.02 | 1.68 | 11.36 | 13.25 | 0.70 | 2.50 | 0.56 | 0.83 | 2.65 | 1.59 | 2.04 |
| 262 | Col_Mam_Ovi_bon2 | 4.80 | 8.15  | 8.62  | 1.80 | 35.66 | 0.41 | 4.02 | 1.18 | 10.25 | 14.58 | 0.27 | 2.01 | 0.27 | 0.97 | 2.54 | 1.51 | 2.95 |
| 263 | Col_Mam_Ovi_car3 | 6.30 | 8.58  | 8.48  | 3.16 | 35.48 | 0.32 | 4.50 | 1.12 | 10.25 | 12.90 | 0.21 | 0.78 | 0.21 | 0.63 | 2.17 | 1.63 | 3.28 |
| 264 | Col_Mam_Ovi_car3 | 3.84 | 7.66  | 9.28  | 2.40 | 35.40 | 0.33 | 5.45 | 1.99 | 11.30 | 13.53 | 0.22 | 1.81 | 0.22 | 0.65 | 2.32 | 1.58 | 2.02 |
| 265 | Col_Mam_Ovi_car3 | 4.04 | 7.43  | 8.52  | 3.25 | 33.38 | 0.98 | 4.97 | 1.94 | 10.13 | 14.50 | 0.52 | 2.08 | 0.74 | 1.12 | 2.53 | 1.48 | 2.37 |
| 266 | Col_Mam_Ovi_car1 | 6.12 | 7.96  | 8.09  | 2.74 | 35.12 | 1.53 | 5.13 | 1.90 | 10.24 | 12.35 | 0.20 | 1.05 | 0.20 | 0.59 | 2.19 | 1.60 | 2.99 |
| 267 | Col_Mam_Ovi_car1 | 3.92 | 7.21  | 8.64  | 2.36 | 35.07 | 0.95 | 5.44 | 2.02 | 11.51 | 13.02 | 0.17 | 2.83 | 0.51 | 0.97 | 2.64 | 1.44 | 1.31 |
| 268 | Col_Mam_Ovi_car1 | 3.92 | 7.18  | 8.56  | 2.95 | 34.23 | 1.45 | 4.88 | 1.87 | 10.34 | 14.40 | 0.45 | 2.12 | 0.22 | 1.12 | 2.60 | 1.53 | 2.17 |
| 269 | Col_Mam_Ovi_car2 | 6.65 | 8.79  | 7.48  | 3.51 | 33.67 | 2.13 | 5.17 | 2.13 | 9.61  | 11.43 | 0.19 | 1.22 | 0.19 | 0.62 | 2.51 | 1.58 | 3.11 |
| 270 | Col_Mam_Ovi_car2 | 3.57 | 6.61  | 8.22  | 2.62 | 34.19 | 1.44 | 5.20 | 2.09 | 10.91 | 13.12 | 0.40 | 2.84 | 0.55 | 1.27 | 3.02 | 1.97 | 1.99 |
| 271 | Col_Mam_Ovi_car2 | 4.89 | 8.15  | 7.10  | 3.93 | 30.18 | 1.84 | 5.19 | 2.44 | 9.49  | 14.20 | 0.89 | 2.83 | 0.59 | 1.29 | 3.13 | 1.74 | 2.10 |
| 272 | Col_Mam_Pig_sk1  | 5.02 | 8.57  | 9.00  | 2.41 | 37.25 | 0.32 | 4.26 | 0.95 | 10.03 | 13.67 | 0.21 | 1.62 | 0.21 | 0.67 | 2.15 | 1.20 | 2.46 |
| 273 | Col_Mam_Pig_sk1  | 5.89 | 8.66  | 8.19  | 3.25 | 33.99 | 1.10 | 5.14 | 1.46 | 10.63 | 12.40 | 0.18 | 1.37 | 0.18 | 0.55 | 2.13 | 1.63 | 3.26 |
| 274 | Col_Mam_Pig_sk1  | 4.09 | 7.50  | 9.12  | 2.69 | 35.31 | 0.34 | 5.08 | 1.42 | 11.03 | 13.51 | 0.22 | 1.86 | 0.29 | 0.85 | 2.50 | 1.60 | 2.59 |
| 275 | Col_Mam_Pig_bon1 | 5.12 | 8.73  | 8.04  | 2.93 | 33.63 | 0.44 | 4.95 | 1.53 | 10.97 | 12.43 | 0.29 | 1.52 | 0.42 | 0.88 | 2.61 | 1.85 | 3.66 |
| 276 | Col_Mam_Pig_bon1 | 6.37 | 9.20  | 7.87  | 2.95 | 33.83 | 0.45 | 4.69 | 1.09 | 10.29 | 12.41 | 0.30 | 0.71 | 0.30 | 0.91 | 2.32 | 1.91 | 4.38 |
| 277 | Col_Mam_Pig_bon1 | 4.22 | 8.28  | 8.44  | 2.67 | 33.42 | 0.43 | 5.20 | 1.95 | 11.23 | 12.84 | 0.28 | 2.27 | 0.53 | 0.85 | 2.88 | 1.79 | 2.71 |
| 278 | Col_Mam_Pig_car1 | 4.84 | 8.40  | 9.18  | 2.19 | 37.06 | 0.30 | 4.43 | 1.09 | 10.17 | 13.47 | 0.20 | 1.77 | 0.20 | 0.64 | 2.16 | 1.39 | 2.51 |
| 279 | Col_Mam_Pig_car1 | 5.89 | 8.66  | 8.19  | 3.25 | 33.99 | 1.10 | 5.14 | 1.46 | 10.63 | 12.40 | 0.18 | 1.37 | 0.18 | 0.55 | 2.13 | 1.63 | 3.26 |
| 280 | Col_Mam_Pig_car1 | 4.08 | 7.42  | 9.11  | 3.00 | 34.45 | 0.27 | 5.30 | 1.76 | 11.38 | 13.23 | 0.18 | 2.18 | 0.37 | 0.78 | 2.49 | 1.66 | 2.36 |
| 281 | Col_Mam_Pig_sk1  | 4.24 | 7.20  | 7.29  | 1.45 | 38.26 | 0.55 | 5.03 | 1.02 | 11.91 | 13.59 | 0.36 | 1.42 | 0.36 | 1.09 | 1.76 | 1.31 | 3.17 |
| 282 | Col_Mam_Pig_sk1  | 4.91 | 7.11  | 7.89  | 2.31 | 34.65 | 0.58 | 5.30 | 1.54 | 12.62 | 13.19 | 0.39 | 1.87 | 0.39 | 1.16 | 1.32 | 1.16 | 3.62 |
| 283 | Col_Mam_Pig_sk1  | 3.68 | 7.36  | 8.63  | 2.44 | 36.52 | 0.52 | 4.84 | 1.25 | 11.41 | 14.12 | 0.35 | 1.02 | 0.35 | 1.05 | 2.18 | 1.47 | 2.80 |
| 284 | Col_Mam_Pig_sk2  | 4.59 | 8.09  | 9.11  | 2.04 | 34.04 | 0.32 | 3.82 | 1.15 | 9.67  | 14.33 | 0.22 | 2.27 | 0.82 | 2.07 | 2.94 | 1.82 | 2.71 |
| 285 | Col_Mam_Pig_sk2  | 5.22 | 8.25  | 8.78  | 2.92 | 34.42 | 0.29 | 4.75 | 1.87 | 10.92 | 14.08 | 0.19 | 0.55 | 0.19 | 0.58 | 1.97 | 1.58 | 3.45 |
| 286 | Col_Mam_Pig_sk2  | 4.15 | 7.54  | 8.43  | 2.61 | 34.84 | 0.26 | 5.15 | 1.57 | 11.75 | 13.49 | 0.18 | 2.03 | 0.23 | 0.79 | 2.33 | 1.65 | 3.00 |
| 287 | Col_Mam_Bov_sk1  | 5.51 | 8.31  | 7.79  | 2.82 | 34.04 | 0.31 | 4.94 | 1.35 | 10.90 | 13.14 | 0.21 | 1.56 | 0.21 | 0.86 | 2.64 | 1.78 | 3.63 |
| 288 | Col_Mam_Bov_sk1  | 6.82 | 9.25  | 7.55  | 2.93 | 33.68 | 0.32 | 4.68 | 1.09 | 10.52 | 12.91 | 0.22 | 1.14 | 0.22 | 0.65 | 2.42 | 1.69 | 3.93 |
| 289 | Col_Mam_Bov_sk1  | 4.25 | 7.57  | 8.19  | 2.69 | 34.01 | 0.30 | 5.13 | 1.58 | 11.27 | 13.21 | 0.20 | 2.10 | 0.20 | 1.12 | 2.82 | 1.84 | 3.53 |
| 290 | Col_Mam_Bov_bon1 | 4.95 | 8.10  | 8.84  | 2.21 | 34.51 | 0.44 | 4.17 | 1.26 | 10.70 | 13.71 | 0.29 | 1.85 | 0.29 | 1.33 | 2.86 | 1.56 | 2.93 |
| 291 | Col_Mam_Bov_bon1 | 5.76 | 8.81  | 8.31  | 3.17 | 33.33 | 1.75 | 5.03 | 1.54 | 10.42 | 12.05 | 0.25 | 0.74 | 0.25 | 0.75 | 2.23 | 1.77 | 3.84 |
| 292 | Col_Mam_Bov_bon1 | 4.33 | 8.31  | 8.76  | 2.58 | 33.38 | 0.38 | 5.15 | 1.55 | 11.78 | 12.21 | 0.25 | 2.18 | 0.45 | 1.14 | 2.92 | 1.84 | 2.80 |
| 293 | Col_Mam_Bov_car1 | 5.01 | 8.69  | 10.08 | 2.06 | 32.48 | 0.32 | 4.05 | 2.04 | 10.19 | 13.73 | 0.21 | 2.13 | 0.21 | 2.11 | 2.89 | 1.60 | 2.21 |
| 294 | Col_Mam_Bov_car1 | 5.96 | 8.75  | 8.32  | 2.98 | 34.49 | 0.29 | 4.94 | 1.31 | 10.50 | 12.31 | 0.19 | 1.31 | 0.19 | 0.72 | 2.47 | 1.83 | 3.43 |
| 295 | Col_Mam_Bov_car1 | 4.55 | 7.92  | 8.49  | 2.62 | 32.54 | 0.93 | 5.24 | 1.80 | 11.61 | 12.17 | 0.31 | 2.73 | 0.47 | 1.13 | 2.96 | 1.82 | 2.72 |
| 296 | Col_Mam_Bov_sk1  | 4.76 | 7.40  | 9.22  | 2.75 | 35.83 | 0.31 | 4.28 | 1.20 | 11.26 | 13.62 | 0.20 | 1.38 | 0.39 | 0.72 | 1.93 | 1.54 | 3.23 |
| 297 | Col_Mam_Bov_sk1  | 5.21 | 8.40  | 9.02  | 3.04 | 36.60 | 0.31 | 4.08 | 0.95 | 10.76 | 13.18 | 0.21 | 0.94 | 0.21 | 0.62 | 1.54 | 1.31 | 3.64 |
| 298 | Col_Mam_Bov_sk1  | 3.60 | 6.47  | 9.73  | 2.48 | 35.28 | 0.30 | 4.49 | 1.45 | 11.80 | 14.12 | 0.20 | 1.82 | 0.57 | 1.01 | 2.32 | 1.50 | 2.85 |
| 299 | Col_Mam_Bov_sk2  | 4.56 | 7.73  | 9.79  | 2.16 | 34.07 | 0.31 | 3.84 | 1.19 | 10.68 | 14.14 | 0.20 | 2.22 | 0.97 | 1.02 | 2.86 | 1.72 | 2.52 |
| 300 | Col_Mam_Bov_sk2  | 5.60 | 8.15  | 8.75  | 3.04 | 35.44 | 1.22 | 4.89 | 1.40 | 10.51 | 12.61 | 0.18 | 0.85 | 0.18 | 0.53 | 1.90 | 1.45 | 3.32 |
| 301 | Col_Mam_Bov_sk2  | 3.80 | 7.03  | 8.87  | 2.61 | 35.10 | 0.27 | 4.96 | 1.54 | 11.41 | 13.39 | 0.74 | 2.08 | 0.34 | 1.18 | 2.48 | 1.55 | 2.65 |
| 302 | Col_Mam_Bov_sk3  | 4.78 | 8.14  | 9.18  | 2.03 | 34.99 | 0.34 | 3.86 | 1.43 | 10.42 | 15.07 | 0.23 | 1.87 | 0.23 | 1.15 | 2.42 | 1.38 | 2.48 |

|     |                  |      |      |      |      |       |      |      |      |       |       |      |      |      |      |      |      |      |
|-----|------------------|------|------|------|------|-------|------|------|------|-------|-------|------|------|------|------|------|------|------|
| 303 | Col_Mam_Bov_sk3  | 4.75 | 7.00 | 9.35 | 2.91 | 35.66 | 1.35 | 4.76 | 1.57 | 10.10 | 14.08 | 0.19 | 0.79 | 0.19 | 0.90 | 1.87 | 1.40 | 3.11 |
| 304 | Col_Mam_Bov_sk3  | 4.04 | 7.37 | 9.07 | 2.49 | 35.23 | 0.30 | 4.84 | 1.40 | 11.57 | 13.62 | 0.20 | 2.04 | 0.39 | 0.89 | 2.30 | 1.45 | 2.77 |
| 305 | Col_Fsh_Cod_sk1  | 4.83 | 7.66 | 5.50 | 4.92 | 38.03 | 0.43 | 5.12 | 1.93 | 11.13 | 10.94 | 0.31 | 1.48 | 1.24 | 0.89 | 1.92 | 1.33 | 2.36 |
| 306 | Col_Fsh_Cod_sk1  | 4.61 | 7.19 | 5.43 | 5.40 | 35.23 | 1.06 | 5.44 | 2.50 | 11.45 | 10.34 | 0.59 | 2.71 | 1.30 | 1.05 | 1.95 | 1.43 | 2.30 |
| 307 | Col_Fsh_Flo_sk   | 4.26 | 7.49 | 7.77 | 3.46 | 34.78 | 0.97 | 5.14 | 2.01 | 13.14 | 11.56 | 0.63 | 1.90 | 1.03 | 0.69 | 1.77 | 1.13 | 2.28 |
| 308 | Col_Fsh_Cod_sk2  | 4.11 | 6.92 | 5.67 | 4.71 | 39.11 | 0.38 | 4.72 | 1.41 | 12.31 | 12.05 | 0.25 | 0.88 | 0.58 | 0.84 | 2.08 | 1.39 | 2.58 |
| 309 | Col_Fsh_Cod_sk2  | 4.91 | 7.77 | 5.36 | 5.07 | 35.84 | 0.40 | 5.40 | 2.33 | 11.62 | 10.16 | 0.27 | 1.79 | 1.32 | 1.08 | 2.27 | 1.58 | 2.83 |
| 310 | Col_Fsh_Flo_bon  | 4.04 | 8.21 | 6.09 | 3.77 | 32.87 | 1.08 | 5.39 | 2.16 | 13.39 | 9.97  | 0.54 | 2.62 | 1.15 | 1.08 | 2.16 | 2.28 | 3.23 |
| 311 | Col_Fsh_Cod_bon1 | 4.66 | 6.18 | 5.56 | 5.46 | 35.53 | 1.08 | 5.50 | 2.47 | 11.58 | 10.51 | 0.59 | 2.74 | 1.31 | 1.06 | 1.98 | 1.45 | 2.33 |
| 312 | Col_Fsh_Cod_bon1 | 4.76 | 7.64 | 4.61 | 5.19 | 39.77 | 0.35 | 4.68 | 1.86 | 11.47 | 10.03 | 0.23 | 1.56 | 1.33 | 0.69 | 1.55 | 1.07 | 3.21 |
| 313 | Col_Fsh_Flo_bla  | 4.25 | 7.58 | 7.18 | 3.42 | 33.37 | 1.23 | 5.25 | 2.38 | 13.19 | 10.96 | 0.68 | 2.07 | 1.05 | 0.95 | 2.30 | 1.45 | 2.66 |
| 314 | Col_Fsh_Cod_bon2 | 3.83 | 7.89 | 5.01 | 5.04 | 38.58 | 0.70 | 6.20 | 2.34 | 12.74 | 9.56  | 0.47 | 0.47 | 0.81 | 1.41 | 1.40 | 1.08 | 2.47 |
| 315 | Col_Fsh_Cod_bon2 | 4.02 | 7.81 | 5.11 | 5.15 | 36.47 | 0.66 | 6.23 | 2.62 | 12.33 | 9.37  | 0.44 | 1.35 | 1.19 | 1.31 | 1.75 | 1.45 | 2.74 |
| 316 | Col_Fsh_Cod_sk1  | 5.56 | 7.59 | 5.92 | 4.70 | 34.02 | 1.29 | 4.98 | 2.32 | 9.18  | 12.60 | 0.58 | 2.13 | 1.71 | 1.70 | 2.50 | 1.40 | 1.83 |
| 317 | Col_Fsh_Cod_bla2 | 3.73 | 6.61 | 5.53 | 4.44 | 40.53 | 0.38 | 4.43 | 1.20 | 12.54 | 11.51 | 0.26 | 0.26 | 0.56 | 1.04 | 2.07 | 1.98 | 2.92 |
| 318 | Col_Fsh_Cod_bla2 | 4.73 | 7.60 | 5.45 | 5.19 | 36.40 | 0.39 | 5.14 | 2.10 | 12.20 | 10.48 | 0.26 | 1.26 | 1.31 | 1.07 | 2.10 | 1.75 | 2.60 |
| 319 | Col_Fsh_Cod_sk2  | 4.42 | 7.21 | 5.42 | 4.80 | 38.82 | 0.38 | 5.09 | 1.91 | 11.76 | 10.82 | 0.25 | 1.30 | 0.92 | 0.94 | 2.14 | 1.27 | 2.55 |
| 320 | Col_Fsh_Cod_sk3  | 3.67 | 6.92 | 5.70 | 4.89 | 35.83 | 1.28 | 4.90 | 2.20 | 10.52 | 10.59 | 1.24 | 1.90 | 1.93 | 1.63 | 2.44 | 1.98 | 2.39 |
| 321 | Col_Fsh_Cod_sk3  | 5.22 | 8.32 | 5.84 | 4.34 | 37.82 | 0.50 | 4.91 | 2.00 | 11.84 | 10.05 | 1.48 | 0.34 | 0.82 | 1.01 | 1.68 | 1.36 | 2.49 |
| 322 | Col_Fsh_Cod_bon1 | 4.66 | 6.41 | 3.92 | 4.88 | 40.50 | 0.87 | 5.42 | 0.74 | 11.64 | 10.72 | 0.22 | 2.10 | 1.32 | 0.65 | 1.62 | 0.65 | 3.69 |
| 323 | Col_Fsh_Blw_sk1  | 3.16 | 7.09 | 6.85 | 4.27 | 37.19 | 0.44 | 5.89 | 2.93 | 12.08 | 10.83 | 0.29 | 0.88 | 0.29 | 1.47 | 1.98 | 1.92 | 2.44 |
| 324 | Col_Fsh_Blw_sk1  | 5.64 | 8.65 | 5.65 | 4.62 | 37.57 | 0.50 | 4.86 | 2.02 | 11.25 | 9.76  | 1.53 | 0.33 | 0.60 | 1.00 | 1.85 | 1.44 | 2.72 |
| 325 | Col_Fsh_Cod_bon2 | 4.12 | 7.63 | 5.14 | 5.17 | 34.14 | 1.82 | 6.17 | 2.83 | 11.81 | 9.07  | 1.01 | 1.65 | 1.51 | 1.22 | 2.02 | 1.74 | 2.94 |
| 326 | Col_Fsh_Blw_sk4  | 3.64 | 6.56 | 5.40 | 3.87 | 40.01 | 0.44 | 4.90 | 1.87 | 12.40 | 10.91 | 0.30 | 0.83 | 0.60 | 0.89 | 2.28 | 2.08 | 3.01 |
| 327 | Col_Fsh_Blw_sk4  | 4.45 | 7.54 | 5.86 | 5.03 | 37.36 | 1.26 | 5.29 | 2.25 | 10.69 | 10.33 | 0.82 | 1.29 | 0.94 | 0.87 | 1.95 | 1.54 | 2.51 |
| 328 | Col_Fsh_Blw_sk4  | 5.57 | 8.79 | 6.16 | 5.49 | 36.69 | 1.01 | 5.57 | 2.37 | 10.39 | 9.08  | 1.30 | 1.02 | 0.71 | 0.66 | 1.75 | 1.28 | 2.17 |
| 329 | Col_Fsh_Cod_bla2 | 4.76 | 7.64 | 4.61 | 5.19 | 39.77 | 0.35 | 4.68 | 1.86 | 11.47 | 10.03 | 0.23 | 1.56 | 1.33 | 0.69 | 1.55 | 1.07 | 3.21 |
| 330 | Col_Fsh_Stu_bla1 | 4.49 | 7.99 | 7.24 | 4.60 | 35.86 | 1.18 | 5.09 | 2.09 | 11.79 | 10.49 | 0.25 | 1.62 | 1.16 | 1.06 | 1.72 | 1.27 | 2.09 |
| 331 | Col_Fsh_Blw_bon1 | 3.79 | 7.37 | 5.09 | 5.12 | 37.26 | 0.51 | 5.05 | 2.44 | 12.73 | 9.70  | 0.34 | 0.34 | 0.34 | 1.04 | 2.67 | 1.72 | 4.49 |
| 332 | Col_Fsh_Blw_bon1 | 4.98 | 8.32 | 4.07 | 5.64 | 35.23 | 1.51 | 5.05 | 2.74 | 12.43 | 8.84  | 1.09 | 1.11 | 0.67 | 0.91 | 2.30 | 1.50 | 3.59 |
| 333 | Col_Fsh_Blw_bon1 | 5.89 | 9.33 | 4.36 | 6.01 | 33.32 | 2.08 | 5.01 | 2.96 | 12.09 | 8.08  | 1.55 | 1.44 | 0.93 | 0.81 | 1.99 | 1.31 | 2.84 |
| 334 | Col_Fsh_Stu_bla2 | 4.16 | 7.83 | 7.43 | 5.12 | 35.00 | 1.15 | 4.95 | 2.29 | 11.90 | 11.33 | 1.38 | 1.34 | 0.23 | 1.25 | 1.59 | 1.36 | 1.68 |
| 335 | Col_Fsh_Stu_sk1  | 3.94 | 7.39 | 6.72 | 4.89 | 35.54 | 1.23 | 4.94 | 2.39 | 10.84 | 13.02 | 0.80 | 1.12 | 0.25 | 1.51 | 1.90 | 1.50 | 2.03 |
| 336 | Col_Fsh_Blw_bla1 | 4.88 | 8.16 | 5.95 | 4.16 | 37.54 | 1.05 | 5.24 | 2.62 | 12.48 | 9.57  | 0.26 | 0.86 | 1.11 | 1.05 | 2.36 | 1.31 | 1.41 |
| 337 | Col_Fsh_Blw_bla1 | 3.52 | 6.69 | 6.13 | 5.16 | 37.13 | 1.09 | 4.45 | 2.92 | 12.07 | 10.92 | 1.39 | 1.09 | 0.81 | 1.36 | 2.25 | 1.46 | 1.57 |
| 338 | Col_Fsh_Stu_sk1  | 4.01 | 6.76 | 7.50 | 4.52 | 35.48 | 1.15 | 5.21 | 1.95 | 11.06 | 12.00 | 0.58 | 1.69 | 1.58 | 1.09 | 1.62 | 1.44 | 2.36 |
| 339 | Col_Fsh_Blw_bla1 | 3.68 | 6.33 | 4.85 | 3.42 | 37.29 | 1.00 | 5.17 | 2.75 | 13.80 | 11.13 | 0.92 | 1.50 | 0.75 | 0.94 | 2.21 | 1.83 | 2.44 |
| 340 | Col_Fsh_Blw_bla2 | 5.24 | 8.20 | 5.45 | 4.37 | 36.32 | 1.02 | 4.80 | 2.30 | 12.76 | 10.09 | 1.00 | 1.16 | 1.16 | 0.75 | 1.93 | 1.30 | 2.15 |
| 341 | Col_Fsh_Stu_bon1 | 4.05 | 7.29 | 6.17 | 4.58 | 33.77 | 1.77 | 5.29 | 2.17 | 10.50 | 12.10 | 0.80 | 1.84 | 1.46 | 1.73 | 2.56 | 1.63 | 2.30 |
| 342 | Col_Fsh_Blw_bla2 | 3.92 | 6.93 | 5.57 | 4.66 | 36.92 | 0.57 | 4.92 | 2.53 | 12.52 | 11.30 | 0.38 | 0.87 | 0.96 | 1.13 | 1.97 | 1.97 | 2.87 |
| 343 | Col_Fsh_Blw_bla2 | 5.12 | 8.19 | 5.66 | 4.43 | 37.96 | 0.47 | 4.78 | 2.10 | 13.10 | 10.20 | 1.33 | 0.31 | 0.76 | 0.94 | 1.42 | 1.14 | 2.07 |
| 344 | Col_Fsh_Stu_bon2 | 4.52 | 7.35 | 7.92 | 4.52 | 36.18 | 1.13 | 5.14 | 2.26 | 10.75 | 9.63  | 0.42 | 2.83 | 1.70 | 0.89 | 1.93 | 1.13 | 1.70 |
| 345 | Col_Fsh_Blw_bla4 | 3.17 | 6.14 | 5.15 | 5.89 | 35.32 | 1.30 | 5.40 | 2.60 | 10.84 | 11.77 | 1.23 | 2.21 | 1.47 | 1.24 | 2.00 | 1.83 | 2.44 |
| 346 | Col_Fsh_Stu_bla3 | 3.95 | 6.89 | 7.87 | 4.49 | 36.45 | 1.03 | 5.23 | 2.03 | 11.50 | 10.94 | 0.24 | 1.75 | 1.38 | 1.15 | 1.60 | 1.35 | 2.16 |
| 347 | Col_Fsh_Stu_bla4 | 3.82 | 6.50 | 7.84 | 4.39 | 36.02 | 0.96 | 5.14 | 2.00 | 11.63 | 11.23 | 0.58 | 1.86 | 1.52 | 1.28 | 1.69 | 1.51 | 2.05 |
| 348 | Col_Fsh_Stu_bla1 | 4.28 | 7.43 | 7.42 | 4.37 | 35.86 | 1.03 | 4.94 | 2.26 | 12.36 | 10.51 | 0.25 | 1.85 | 0.97 | 1.21 | 1.85 | 1.56 | 1.85 |
| 349 | Col_Fsh_Stu_bla1 | 4.09 | 6.89 | 7.48 | 4.16 | 35.98 | 0.38 | 5.14 | 2.43 | 12.67 | 10.76 | 0.25 | 1.74 | 0.78 | 1.36 | 2.13 | 1.86 | 1.91 |
| 350 | Col_Fsh_Sol_sk1  | 4.41 | 7.74 | 6.17 | 4.73 | 35.52 | 1.22 | 5.28 | 1.86 | 10.36 | 12.67 | 0.56 | 1.90 | 1.63 | 0.65 | 1.76 | 1.38 | 2.17 |
| 351 | Col_Fsh_Stu_bla2 | 2.72 | 5.63 | 8.43 | 3.87 | 39.62 | 0.34 | 5.10 | 2.01 | 12.78 | 11.50 | 0.23 | 0.52 | 0.23 | 1.06 | 1.75 | 2.04 | 2.18 |
| 352 | Col_Fsh_Stu_bla2 | 3.54 | 6.52 | 7.59 | 4.55 | 36.19 | 0.39 | 5.45 | 2.65 | 12.81 | 10.64 | 0.26 | 1.50 | 0.69 | 1.17 | 2.04 | 1.81 | 2.21 |
| 353 | Col_Fsh_Sol_sk1  | 3.95 | 7.18 | 6.55 | 4.67 | 35.77 | 1.29 | 5.43 | 1.71 | 10.01 | 13.03 | 0.53 | 1.93 | 2.07 | 0.94 | 1.66 | 1.39 | 1.90 |

|     |                  |      |       |      |      |       |      |      |      |       |       |      |      |      |      |      |      |      |
|-----|------------------|------|-------|------|------|-------|------|------|------|-------|-------|------|------|------|------|------|------|------|
| 354 | Col_Fsh_Stu_sk1  | 3.83 | 6.09  | 6.32 | 1.79 | 41.03 | 0.38 | 4.83 | 1.06 | 12.50 | 13.94 | 0.25 | 0.65 | 0.25 | 0.71 | 1.73 | 1.65 | 2.97 |
| 355 | Col_Fsh_Stu_sk2  | 3.95 | 7.39  | 7.02 | 4.43 | 38.35 | 0.36 | 5.15 | 1.95 | 11.53 | 11.90 | 0.24 | 1.56 | 0.44 | 0.71 | 1.79 | 1.34 | 1.87 |
| 356 | Col_Fsh_Sol_sk3  | 3.79 | 7.19  | 5.78 | 4.79 | 32.80 | 1.27 | 4.62 | 2.34 | 10.17 | 11.47 | 1.00 | 2.57 | 2.51 | 2.26 | 3.06 | 2.25 | 2.10 |
| 357 | Col_Fsh_Stu_sk2  | 3.48 | 5.38  | 5.93 | 1.68 | 40.13 | 1.11 | 5.04 | 1.23 | 12.33 | 13.17 | 0.83 | 1.11 | 1.11 | 0.89 | 1.88 | 1.67 | 3.03 |
| 358 | Col_Fsh_Stu_sk2  | 4.83 | 7.51  | 6.46 | 4.10 | 36.38 | 0.82 | 5.00 | 1.99 | 11.01 | 11.24 | 0.68 | 1.90 | 1.30 | 1.09 | 1.71 | 1.78 | 2.18 |
| 359 | Col_Fsh_Sol_bon1 | 4.26 | 8.25  | 6.53 | 5.06 | 36.74 | 1.20 | 5.72 | 2.13 | 9.32  | 10.65 | 0.67 | 1.60 | 1.86 | 0.83 | 1.73 | 1.46 | 2.00 |
| 360 | Col_Fsh_Stu_bon1 | 5.01 | 8.74  | 7.06 | 4.21 | 33.83 | 1.50 | 4.94 | 2.11 | 10.21 | 11.16 | 0.66 | 1.46 | 0.90 | 1.26 | 2.53 | 1.76 | 2.65 |
| 361 | Col_Fsh_Stu_bon1 | 6.04 | 10.31 | 7.64 | 3.90 | 34.32 | 0.53 | 4.64 | 2.07 | 10.05 | 10.35 | 0.36 | 1.10 | 0.36 | 1.07 | 2.53 | 1.92 | 2.81 |
| 362 | Col_Fsh_Sol_bon2 | 4.01 | 8.34  | 6.54 | 4.96 | 35.69 | 1.33 | 5.28 | 1.99 | 9.72  | 12.20 | 0.48 | 1.81 | 2.14 | 0.83 | 1.61 | 1.30 | 1.78 |
| 363 | Col_Fsh_Sol_bon3 | 4.27 | 8.26  | 6.66 | 5.07 | 36.66 | 1.33 | 5.73 | 2.00 | 9.33  | 10.66 | 0.67 | 1.60 | 1.87 | 0.83 | 1.73 | 1.33 | 2.00 |
| 364 | Col_Fsh_Stu_bla3 | 2.98 | 5.92  | 8.29 | 2.76 | 39.05 | 0.40 | 5.04 | 1.67 | 12.44 | 11.94 | 0.27 | 1.27 | 0.27 | 1.37 | 1.96 | 1.90 | 2.49 |
| 365 | Col_Fsh_Stu_bla3 | 4.66 | 7.78  | 7.70 | 4.88 | 38.42 | 1.10 | 5.22 | 2.27 | 10.94 | 8.72  | 0.17 | 1.88 | 1.68 | 0.51 | 1.68 | 1.17 | 1.22 |
| 366 | Col_Fsh_Stu_bla3 | 4.42 | 7.37  | 8.57 | 4.70 | 37.08 | 0.70 | 4.74 | 2.02 | 10.44 | 8.17  | 1.35 | 1.93 | 1.53 | 1.64 | 2.34 | 1.64 | 1.35 |
| 367 | Col_Fsh_Sol_bla1 | 4.24 | 7.21  | 5.39 | 3.03 | 36.94 | 0.36 | 5.09 | 1.21 | 12.72 | 13.32 | 0.54 | 1.16 | 0.85 | 0.79 | 2.42 | 1.77 | 2.97 |
| 368 | Col_Fsh_Stu_bla4 | 4.42 | 7.60  | 7.01 | 3.06 | 39.04 | 0.32 | 5.02 | 1.23 | 11.91 | 10.47 | 0.60 | 1.19 | 0.59 | 0.63 | 2.21 | 1.71 | 3.00 |
| 369 | Col_Fsh_Stu_bla4 | 3.78 | 6.88  | 8.12 | 4.17 | 37.88 | 0.32 | 4.88 | 2.05 | 12.21 | 10.69 | 0.21 | 2.17 | 1.13 | 0.64 | 1.76 | 1.30 | 1.79 |
| 370 | Col_Fsh_Sol_bla3 | 3.74 | 6.73  | 5.36 | 1.87 | 38.65 | 0.37 | 5.24 | 0.75 | 13.72 | 14.09 | 0.25 | 0.87 | 0.50 | 0.75 | 1.87 | 1.87 | 3.37 |
| 371 | Col_Fsh_Sol_sk1  | 3.47 | 6.34  | 5.84 | 1.73 | 39.68 | 0.38 | 5.04 | 0.61 | 13.34 | 14.44 | 0.25 | 0.85 | 0.25 | 0.76 | 2.05 | 1.64 | 3.34 |
| 372 | Col_Fsh_Sol_sk2  | 4.63 | 7.66  | 5.71 | 3.99 | 35.13 | 0.36 | 4.88 | 1.67 | 11.68 | 11.91 | 1.43 | 1.45 | 1.31 | 1.04 | 2.77 | 1.80 | 2.61 |
| 373 | Col_Fsh_Hak_sk1  | 3.59 | 6.92  | 6.24 | 4.64 | 36.66 | 1.27 | 5.34 | 2.34 | 11.17 | 11.27 | 0.53 | 2.08 | 2.12 | 0.85 | 1.70 | 1.21 | 2.08 |
| 374 | Col_Fsh_Sol_sk2  | 4.48 | 7.66  | 5.89 | 4.71 | 35.94 | 1.18 | 5.25 | 1.74 | 10.61 | 12.17 | 0.95 | 1.52 | 1.38 | 0.71 | 2.03 | 1.40 | 2.36 |
| 375 | Col_Fsh_Sol_sk2  | 5.03 | 8.49  | 5.54 | 4.95 | 35.78 | 0.36 | 5.06 | 1.77 | 11.49 | 11.27 | 1.39 | 1.10 | 0.66 | 0.72 | 2.41 | 1.41 | 2.55 |
| 376 | Col_Fsh_Hak_sk1  | 4.56 | 7.82  | 6.85 | 4.75 | 35.63 | 1.20 | 5.22 | 2.47 | 10.48 | 10.99 | 0.54 | 1.95 | 1.62 | 1.15 | 1.34 | 1.47 | 1.95 |
| 377 | Col_Fsh_Sol_sk3  | 3.71 | 6.49  | 5.63 | 1.84 | 39.91 | 0.40 | 5.01 | 0.97 | 13.11 | 13.71 | 0.27 | 1.16 | 0.35 | 0.80 | 2.11 | 1.85 | 2.69 |
| 378 | Col_Fsh_Sol_sk3  | 4.75 | 7.84  | 6.05 | 4.39 | 36.95 | 0.36 | 5.00 | 1.95 | 11.87 | 11.84 | 1.18 | 1.04 | 0.72 | 0.72 | 1.79 | 1.24 | 2.31 |
| 379 | Col_Fsh_Hak_bon1 | 5.18 | 8.87  | 5.04 | 4.90 | 33.05 | 1.63 | 4.74 | 2.90 | 10.93 | 9.98  | 0.68 | 2.32 | 1.82 | 1.27 | 2.22 | 1.77 | 2.68 |
| 380 | Col_Fsh_Sol_bon1 | 3.75 | 8.17  | 6.43 | 4.69 | 35.86 | 1.34 | 5.30 | 2.00 | 9.77  | 12.19 | 0.48 | 1.82 | 2.41 | 0.80 | 1.88 | 1.34 | 1.79 |
| 381 | Col_Fsh_Sol_bon1 | 4.34 | 8.85  | 6.01 | 4.51 | 37.06 | 1.34 | 5.01 | 2.00 | 11.52 | 10.68 | 1.34 | 0.33 | 0.67 | 1.00 | 1.84 | 1.17 | 2.34 |
| 382 | Col_Fsh_Hak_bon1 | 4.54 | 7.80  | 4.75 | 4.77 | 32.34 | 1.86 | 5.02 | 3.11 | 10.94 | 9.27  | 1.35 | 2.25 | 1.73 | 2.53 | 3.30 | 1.73 | 2.71 |
| 383 | Col_Fsh_Sol_bon2 | 4.21 | 8.41  | 6.25 | 4.47 | 36.33 | 1.48 | 5.09 | 1.78 | 10.37 | 11.86 | 0.90 | 1.30 | 1.48 | 0.89 | 1.48 | 1.48 | 2.22 |
| 384 | Col_Fsh_Sol_bon2 | 4.58 | 8.74  | 6.05 | 3.95 | 37.81 | 0.52 | 5.00 | 1.56 | 11.52 | 11.42 | 1.47 | 0.34 | 0.47 | 1.03 | 1.72 | 1.31 | 2.50 |
| 385 | Col_Fsh_Hak_bla1 | 3.36 | 6.89  | 5.66 | 4.49 | 36.86 | 1.29 | 5.33 | 2.30 | 11.52 | 11.86 | 0.29 | 1.30 | 1.86 | 1.24 | 1.76 | 1.61 | 2.39 |
| 386 | Col_Fsh_Sol_bon3 | 4.10 | 8.59  | 6.61 | 4.92 | 35.68 | 1.32 | 5.23 | 1.97 | 9.64  | 12.10 | 0.47 | 1.79 | 2.12 | 0.82 | 1.60 | 1.29 | 1.76 |
| 387 | Col_Fsh_Hak_bla1 | 2.17 | 6.27  | 4.70 | 5.00 | 32.60 | 1.43 | 4.73 | 2.74 | 9.82  | 10.99 | 1.18 | 3.17 | 3.04 | 2.99 | 3.69 | 2.70 | 2.78 |
| 388 | Col_Fsh_Sol_bla1 | 3.61 | 6.72  | 5.35 | 2.49 | 38.61 | 0.37 | 5.23 | 0.75 | 13.45 | 14.07 | 0.25 | 0.87 | 0.50 | 0.75 | 1.87 | 1.74 | 3.36 |
| 389 | Col_Fsh_Sol_bla1 | 4.52 | 7.72  | 5.47 | 3.92 | 35.65 | 0.36 | 4.99 | 1.78 | 11.88 | 12.36 | 0.71 | 1.45 | 1.19 | 0.95 | 2.61 | 1.81 | 2.62 |
| 390 | Col_Fsh_Cod_sk3  | 2.25 | 5.68  | 5.27 | 5.13 | 33.99 | 1.41 | 4.97 | 2.42 | 9.41  | 11.06 | 1.02 | 3.11 | 3.01 | 2.86 | 3.51 | 2.60 | 2.32 |
| 391 | Col_Fsh_Blw_sk1  | 2.54 | 5.93  | 5.38 | 4.81 | 33.95 | 1.35 | 5.05 | 2.24 | 9.46  | 10.78 | 0.99 | 3.19 | 3.17 | 2.42 | 3.76 | 2.63 | 2.34 |
| 392 | Col_Fsh_Hak_sk1  | 3.81 | 7.25  | 6.25 | 4.22 | 36.57 | 1.22 | 4.92 | 2.29 | 11.70 | 10.67 | 1.05 | 1.48 | 2.29 | 1.05 | 1.47 | 1.50 | 2.27 |
| 393 | Col_Fsh_Hak_sk2  | 4.62 | 7.75  | 5.99 | 3.79 | 36.62 | 0.50 | 4.51 | 1.89 | 12.50 | 9.84  | 1.70 | 0.79 | 1.51 | 1.35 | 2.24 | 1.86 | 2.54 |
| 394 | Col_Fsh_Blw_sk4  | 3.90 | 7.39  | 5.98 | 5.24 | 36.25 | 1.28 | 5.34 | 2.48 | 9.97  | 11.40 | 0.58 | 2.02 | 1.53 | 1.17 | 1.90 | 1.41 | 2.15 |
| 395 | Col_Fsh_Hak_sk2  | 3.18 | 6.28  | 6.11 | 3.19 | 40.36 | 0.44 | 4.84 | 1.75 | 13.93 | 10.86 | 0.30 | 0.30 | 0.62 | 0.89 | 1.82 | 2.01 | 3.13 |
| 396 | Col_Fsh_Hak_sk2  | 4.18 | 7.32  | 6.35 | 3.88 | 36.71 | 0.46 | 4.65 | 2.15 | 12.10 | 9.84  | 1.61 | 0.92 | 1.26 | 1.32 | 2.31 | 1.91 | 3.02 |
| 397 | Col_Fsh_Blw_bon2 | 6.27 | 10.07 | 3.62 | 5.18 | 30.88 | 0.66 | 4.52 | 2.49 | 11.42 | 7.32  | 2.65 | 2.15 | 1.98 | 2.44 | 3.89 | 2.09 | 2.37 |
| 398 | Col_Fsh_Hak_bon1 | 3.84 | 7.71  | 4.93 | 3.93 | 35.22 | 0.38 | 5.12 | 2.18 | 12.96 | 10.63 | 0.66 | 2.12 | 1.12 | 1.44 | 2.64 | 2.10 | 3.02 |
| 399 | Col_Fsh_Hak_bon2 | 5.73 | 9.23  | 4.90 | 4.67 | 33.78 | 0.95 | 5.02 | 2.73 | 12.29 | 9.02  | 1.45 | 1.28 | 0.95 | 0.82 | 2.29 | 1.68 | 3.21 |
| 400 | Col_Fsh_Blw_bon2 | 4.97 | 8.31  | 4.07 | 5.63 | 35.17 | 1.51 | 5.04 | 2.73 | 12.41 | 8.83  | 1.09 | 1.11 | 0.67 | 0.91 | 2.29 | 1.50 | 3.78 |
| 401 | Col_Fsh_Hak_bon2 | 5.29 | 9.13  | 4.41 | 4.74 | 32.06 | 1.76 | 4.65 | 2.92 | 11.21 | 8.48  | 1.76 | 2.24 | 2.13 | 1.76 | 2.65 | 1.86 | 2.94 |
| 402 | Col_Fsh_Hak_bon2 | 5.93 | 10.16 | 4.62 | 4.93 | 33.21 | 1.32 | 4.73 | 2.84 | 12.01 | 8.00  | 1.69 | 1.08 | 0.59 | 1.13 | 2.60 | 1.85 | 3.31 |
| 403 | Col_Fsh_Blw_bon4 | 5.82 | 9.37  | 4.31 | 6.02 | 32.78 | 2.06 | 4.95 | 2.92 | 12.04 | 7.99  | 1.34 | 1.43 | 0.92 | 0.80 | 1.96 | 1.29 | 4.01 |
| 404 | Col_Fsh_Hak_bla1 | 3.76 | 7.09  | 5.55 | 4.07 | 36.41 | 1.20 | 4.83 | 2.20 | 12.10 | 11.28 | 0.95 | 1.10 | 1.67 | 1.50 | 1.98 | 1.77 | 2.53 |

|     |                  |      |      |      |      |       |      |      |      |       |       |      |      |      |      |      |      |      |
|-----|------------------|------|------|------|------|-------|------|------|------|-------|-------|------|------|------|------|------|------|------|
| 405 | Col_Fsh_Hak_bla2 | 4.51 | 7.37 | 5.48 | 3.64 | 36.20 | 0.48 | 4.32 | 2.12 | 12.83 | 10.91 | 1.53 | 0.89 | 1.49 | 1.35 | 2.23 | 1.95 | 2.70 |
| 406 | Col_Fsh_Blw_bla3 | 3.49 | 6.83 | 5.91 | 5.04 | 37.66 | 1.21 | 5.43 | 2.43 | 10.61 | 11.62 | 0.51 | 1.94 | 1.35 | 0.80 | 1.68 | 1.30 | 2.22 |
| 407 | Col_Fsh_Hak_bla2 | 2.03 | 5.76 | 5.46 | 2.54 | 40.44 | 0.62 | 4.74 | 2.02 | 14.09 | 11.18 | 0.41 | 0.41 | 1.56 | 1.24 | 1.77 | 2.13 | 3.60 |
| 408 | Col_Fsh_Hak_bla2 | 4.62 | 8.20 | 5.41 | 3.88 | 37.64 | 0.58 | 4.62 | 2.29 | 12.64 | 10.21 | 1.72 | 0.39 | 0.55 | 1.17 | 1.41 | 1.43 | 3.26 |
| 409 | Col_Fsh_Blw_bla3 | 3.29 | 7.23 | 5.52 | 4.85 | 36.24 | 1.46 | 4.93 | 2.39 | 11.39 | 11.15 | 1.09 | 2.14 | 1.04 | 1.09 | 2.13 | 1.60 | 2.45 |
| 410 | Col_Fsh_Flo_sk   | 4.14 | 7.10 | 7.70 | 3.12 | 34.88 | 0.91 | 5.33 | 2.09 | 13.65 | 11.24 | 0.50 | 1.85 | 0.98 | 0.71 | 1.90 | 1.41 | 2.47 |
| 411 | Col_Fsh_Flo_sk   | 4.37 | 7.00 | 7.69 | 2.78 | 35.23 | 0.37 | 5.22 | 2.19 | 14.29 | 10.67 | 0.25 | 1.80 | 0.93 | 0.74 | 2.04 | 1.73 | 2.70 |
| 412 | Col_Fsh_Blw_bla3 | 3.16 | 6.11 | 5.33 | 6.00 | 35.56 | 1.29 | 5.38 | 2.59 | 10.78 | 11.63 | 1.22 | 2.10 | 1.37 | 1.24 | 1.99 | 1.82 | 2.43 |
| 413 | Col_Fsh_Flo_bon  | 4.09 | 8.44 | 6.15 | 3.49 | 32.69 | 0.82 | 5.45 | 2.18 | 13.62 | 9.81  | 0.54 | 2.72 | 1.16 | 1.09 | 1.91 | 2.31 | 3.54 |
| 414 | Col_Fsh_Flo_bon  | 4.41 | 8.11 | 6.11 | 3.47 | 31.89 | 0.81 | 5.74 | 3.07 | 13.37 | 9.54  | 0.54 | 2.56 | 1.15 | 1.08 | 2.17 | 2.29 | 3.68 |
| 415 | Col_Fsh_Blw_bla4 | 3.35 | 6.69 | 6.02 | 5.05 | 37.77 | 1.21 | 5.35 | 2.43 | 10.64 | 11.65 | 0.51 | 1.94 | 1.36 | 0.80 | 1.69 | 1.30 | 2.23 |
| 416 | Col_Fsh_Trk_sk   | 4.13 | 7.08 | 6.58 | 5.14 | 35.83 | 1.10 | 5.34 | 2.36 | 10.52 | 12.49 | 0.20 | 1.73 | 1.25 | 0.91 | 1.67 | 1.45 | 2.21 |
| 417 | Col_Fsh_Trk_sk   | 3.92 | 6.92 | 6.01 | 4.01 | 39.05 | 0.30 | 3.70 | 1.69 | 12.51 | 12.58 | 0.20 | 0.78 | 0.92 | 0.84 | 2.10 | 1.82 | 2.65 |
| 418 | Col_Fsh_Trk_sk   | 4.62 | 7.37 | 6.39 | 4.77 | 35.34 | 0.35 | 5.18 | 2.27 | 12.28 | 11.04 | 0.23 | 1.26 | 1.05 | 0.85 | 2.22 | 1.81 | 2.99 |
| 419 | Col_Fsh_Trk_sk   | 4.44 | 7.10 | 6.55 | 4.77 | 36.40 | 0.89 | 5.06 | 2.31 | 11.59 | 11.87 | 0.22 | 0.61 | 0.86 | 0.76 | 2.09 | 1.67 | 2.80 |
| 420 | Col_Fsh_Trk_sk   | 4.85 | 7.80 | 6.56 | 4.50 | 36.20 | 0.85 | 5.07 | 2.02 | 12.30 | 10.78 | 0.21 | 1.74 | 1.32 | 0.62 | 1.97 | 1.26 | 1.96 |
| 421 | Col_Fsh_Trk_bon  | 4.60 | 6.89 | 6.59 | 4.81 | 36.12 | 0.90 | 5.10 | 2.32 | 11.66 | 11.94 | 0.22 | 0.61 | 0.87 | 0.77 | 2.10 | 1.68 | 2.82 |
| 422 | Col_Fsh_Trk_bon  | 4.51 | 7.49 | 6.67 | 4.72 | 36.42 | 0.92 | 5.07 | 2.02 | 12.30 | 10.79 | 0.21 | 1.74 | 1.32 | 0.62 | 1.97 | 1.26 | 1.96 |
| 423 | Col_Fsh_Trk_bon  | 4.32 | 7.35 | 6.38 | 4.76 | 37.62 | 0.32 | 4.76 | 2.16 | 12.43 | 10.59 | 0.22 | 1.30 | 1.19 | 0.65 | 2.16 | 1.41 | 2.38 |
| 424 | Col_Fsh_Trk_bla  | 4.60 | 7.18 | 6.48 | 4.78 | 35.91 | 0.85 | 5.05 | 2.29 | 11.78 | 11.47 | 0.22 | 0.92 | 0.96 | 0.80 | 2.15 | 1.74 | 2.81 |
| 425 | Col_Fsh_Trk_bla  | 4.48 | 7.39 | 6.61 | 4.74 | 36.39 | 0.91 | 5.06 | 2.16 | 11.95 | 11.30 | 0.21 | 1.19 | 1.10 | 0.66 | 2.02 | 1.46 | 2.37 |

Alb: albumin;

Gla: glair, Weg: whole egg, Ylk: yolk;

Mll: mallard, Phe: pheasant, Chk: chicken, Chd: dwarf chicken, Goo: goose, Pgn: pigeon, Dck: duck, Trk: turkey, Pck: peacock,

Cas: casein

Cap: caprin; Gra: granadina, Grm: granadina-murciana, Mal: malagueña, Man: manchega, Pyr: pyrenaica hispanica

Bov: bovine; Brn: brown swiss, Fri: friesian, Hol: holstein, Jer: jersey

Ovi: ovine; Awa: awassi, Blk: black-eye, Cas: castellana, Chu: churro, Lch: lacha, Maj: red Majorcan, Man: manchega, Mer: merino, Seg: segureña

Dnk: donkey

Hmn: human

Col: collagen

Mam: mammalian, Bov: bovine, Cap: caprine, Rab: rabbit, Ovi: ovine, Pig: pig, Sk: skin, Bon: bone, Car: cartilage;

Fsh: fish, Blw: blue whiting, Cod: cod, Flo: flounder, Hak: hake, Sol: sole, Stur: sturgeon, Trb: turbot, Sk: skin, Bon: backbone, Bla: air bladder

Asp: Aspartic acid; Glu: Glutamic acid; HOpr: Hydroxyproline; Ser: Serine; Gly: Glycine; His: Histidine; Arg: Arginine; Thr: Threonine; Ala: Alanine; Pro: Proline; Tyr: Tyrosine; Val: Valine; Met: Methionine; Ile: Isoleucine; Leu: Leucine; Phe: Phenylalanine; Lys: Lysine

**Table S2. ANOVA results of study according to origin, using LSD as criterion to compare mean values (P<0,05). Only results for subclasses are shown.**

|       |                                     |                                                                                                |                                     |                         |                                                      |                                                  |
|-------|-------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------|------------------------------------------------------|--------------------------------------------------|
| Asp   |                                     |                                                                                                |                                     | 7-8                     | 19-21, 20-21                                         |                                                  |
| Glu   | 1-3, 2-3                            |                                                                                                |                                     | 7-8                     | 19-20, 19-21                                         |                                                  |
| H Opr |                                     |                                                                                                |                                     | 7-8                     |                                                      |                                                  |
| Ser   | 1-2, 2-3                            |                                                                                                | 5-6                                 | 7-8                     | 17-18                                                | 19-20, 19-21                                     |
| Gly   | 1-3, 2-3                            | 9-12                                                                                           | 4-5, 5-6                            | 7-8                     |                                                      | 19-20, 19-21                                     |
| His   | 1-2, 2-3                            |                                                                                                |                                     | 7-8                     | 17-18                                                | 19-20, 19-21                                     |
| Arg   | 1-2, 1-3, 2-3                       |                                                                                                | 4-5, 5-6                            | 7-8                     |                                                      |                                                  |
| Thr   | 1-2, 1-3, 2-3                       | 10-11, 10-13 10-15                                                                             | 4-5, 5-6                            | 7-8                     | 17-18                                                | 19-21                                            |
| Ala   |                                     | 9-10, 9-11 9-13, 9-14<br>10-11, 10-12 10-13, 10-15                                             | 4-6, 5-6                            | 7-8                     | 17-18                                                | 19-20                                            |
| Pro   | 1-2, 2-3                            | 9-13, 9-15,                                                                                    | 4-5, 5-6                            | 7-8                     |                                                      | 19-20, 19-21                                     |
| Tyr   | 1-2, 2-3                            | 10-13                                                                                          | 4-5, 4-6, 5-6                       | 7-8                     | 16-18, 17-18                                         |                                                  |
| Val   | 1-2, 2-3                            | 9-12, 9-13                                                                                     | 4-5, 5-6                            |                         | 16-18, 17-18                                         |                                                  |
| Met   | 1-2                                 | 9-14, 10-14, 11-12,<br>12-14, 14-15                                                            |                                     | 7-8                     |                                                      |                                                  |
| Ile   | 1-2, 1-3                            | 9-15, 13-15 14-15                                                                              | 4-5                                 | 7-8                     |                                                      |                                                  |
| Leu   | 1-2, 1-3                            |                                                                                                |                                     | 7-8                     |                                                      |                                                  |
| Phe   | 1-2, 2-3                            |                                                                                                | 4-6, 5-6                            |                         |                                                      |                                                  |
| Lys   | 1-2, 1-3, 2-3                       | 9-12                                                                                           |                                     | 7-8                     | 17-18                                                |                                                  |
|       | 1= glair<br>2= yolk<br>3= whole egg | 9= pheasant<br>10= chicken<br>11= goose<br>12= pigeon<br>13= duck<br>14= mallard<br>15= turkey | 4= bovine<br>5= caprine<br>6= ovine | 7= mammalian<br>8= fish | 16= skin mam.<br>17= cartilage mam.<br>18= bone mam. | 19= backbone<br>20= air bladder<br>21= skin fish |