

## Annex 6: WGWIDE 2020 productivity changes survey

| Expert group | Stock code              | Biomass/stock trend/assessment; catch/bycatch status/trend |                                      |  |  |                                  |
|--------------|-------------------------|--|--------------------------------------|--|--|----------------------------------|
|              |                         | Variability/ change in length distribution                 | Variability/ change in weight-at-age | Variability/ change in maturity-at-age | Variability/ change in natural mortality | Variability/ change in sex ratio |
| WGWIDE       | boc.27.6-8              | 2  | 2                                    | 2                                      | 1  | 0                                |
| WGWIDE       | gur.27.3-8              |  |                                      |  |  |                                  |
| WGWIDE       | her.27.1-24a514a        |  |                                      |  |  |                                  |
| WGWIDE       | hom.27.2a4a5b6a7a-ce-k8 | 3  | 1                                    | 0                                      | 0  | 0                                |
| WGWIDE       | hom.27.3a4bc7d          | 3  | 1                                    | 0                                      | 0  | 0                                |
| WGWIDE       | mac.27.nea              | 3  | 3                                    | 3                                      | 0  | 0                                |
| WGWIDE       | mur.27.67a-ce-k89a      |  |                                      |  |  |                                  |
| WGWIDE       | whb.27.1-91214          | 3  | 3                                    | 1                                      | 1  | 1                                |

| Expert group | Stock code              | Short term forecast                     |   |                                     |                                       |   |
|--------------|-------------------------|---|---|-------------------------------------|---------------------------------------|---|
|              |                         | Environmentally driven recruit-<br>ment | Truncating recruit-<br>ment time-series | Recent or trend in<br>weight-at-age | Recent or trend in<br>maturity-at-age | Recent or trend in<br>natural mortality |
| WGWIDE       | boc.27.6-8              | 0                                       | 0                                       | 0                                   | 0                                     | 0                                       |
| WGWIDE       | gur.27.3-8              |   |   |                                     |                                       |   |
| WGWIDE       | her.27.1-24a514a        |   |   |                                     |                                       |   |
| WGWIDE       | hom.27.2a4a5b6a7a-ce-k8 | 0                                       | 0                                       | 0                                   | 0                                     | 0                                       |
| WGWIDE       | hom.27.3a4bc7d          | 0                                       | 0                                       | 0                                   | 0                                     | 0                                       |
| WGWIDE       | mac.27.nea              | 0                                       | 0                                       | 3                                   | 3                                     | 0                                       |
| WGWIDE       | mur.27.67a-ce-k89a      |   |   |                                     |                                       |   |
| WGWIDE       | whb.27.1-91214          | 1                                       | 1                                       | 1                                   | 0                                     | 0                                       |

| Expert group | Stock code              | MSE (management/re-building plans). Uncertainty or differing operating models |                                    |  |  |                               |
|--------------|-------------------------|---|------------------------------------|--|--|-------------------------------|
|              |                         | Environmentally driven recruitment  | Truncating recruitment time series | Variable weight-at-age (environment or density driven) | Recent or trend in maturity-at-age (environment or density driven) | Dynamics in natural mortality |
| WGWIDE       | boc.27.6-8              | 0   | 0                                  | 0  | 0  | 0                             |
| WGWIDE       | gur.27.3-8              |   |                                    |  |  |                               |
| WGWIDE       | her.27.1-24a514a        |   |                                    |  |  |                               |
| WGWIDE       | hom.27.2a4a5b6a7a-ce-k8 | 0   | 0                                  | 0  | 0  | 0                             |
| WGWIDE       | hom.27.3a4bc7d          | 0   | 0                                  | 0  | 0  | 0                             |
| WGWIDE       | mac.27.nea              | 0   | 3                                  | 3  | 3  | 0                             |
| WGWIDE       | mur.27.67a-ce-k89a      |   |                                    |  |  |                               |
| WGWIDE       | whb.27.1-91214          | 3   | 3                                  | 1  | 0  | 0                             |

| Expert group | Stock code              | Advice  |  |                               |  | Distribution and habitats   |                             |  |
|--------------|-------------------------|---|--|-------------------------------|--|-----------------------------|-----------------------------|--|
|              |                         | Specific productivity information used (e.g. escapement rule) |  | Influence of population state |  | Habitat suitability/quality | Within-species stock mixing |  |
| WGWIDE       | boc.27.6-8              | 0   |  | 1                             |  | 1                           | 1                           |  |
| WGWIDE       | gur.27.3-8              |   |  |                               |  |                             |                             |  |
| WGWIDE       | her.27.1-24a514a        |   |  |                               |  |                             |                             |  |
| WGWIDE       | hom.27.2a4a5b6a7a-ce-k8 | 0   |  | 0                             |  | 0                           | 1                           |  |
| WGWIDE       | hom.27.3a4bc7d          | 0   |  | 0                             |  | 1                           | 1                           |  |
| WGWIDE       | mac.27.nea              | 0   |  | 1                             |  | 1                           | 0                           |  |
| WGWIDE       | mur.27.67a-ce-k89a      |   |  |                               |  |                             |                             |  |
| WGWIDE       | whb.27.1-91214          | 0   |  | 3                             |  | 3                           | 0                           |  |

| Expert group | Stock code              | Mixed fisheries                     |                               |   | Climate  |
|--------------|-------------------------|-------------------------------------|-------------------------------|---|--|
|              |                         | Catch and bycatch of target species | Bycatch of non-target species | Consideration of mixed fisheries advice | Consideration of changes due to climate variability/change |
| WGWIDE       | boc.27.6-8              | 1                                   | 1                             | 0                                       | 0  |
| WGWIDE       | gur.27.3-8              |                                     |                               |   |  |
| WGWIDE       | her.27.1-24a514a        |                                     |                               |   |  |
| WGWIDE       | hom.27.2a4a5b6a7a-ce-k8 | 0                                   | 0                             | 0                                       | 1  |
| WGWIDE       | hom.27.3a4bc7d          | 1                                   | 0                             | 0                                       | 1  |
| WGWIDE       | mac.27.nea              | 2                                   | 2                             | 2                                       | 1  |
| WGWIDE       | mur.27.67a-ce-k89a      |                                     |                               |   |  |
| WGWIDE       | whb.27.1-91214          | 1                                   | 1                             | 0                                       | 1  |