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**SCIENTIFIC COUNCIL MEETING – SEPTEMBER 2006**

Available Data from the Commercial Fisheries Related to Stock Assessment (2005)

and

Inventory of Biological Surveys Conducted in the NAFO Area in 2005

and

Biological Surveys Planned for 2006 and Early-2007

At its meetings in June 2002 and 2003, the Scientific Council (STACREC) agreed that three Tables which are usually compiled and presented as Tables 3, 4 and 5 in the STACREC report are important and need to be complete with information from all Scientific Council sources. Accordingly, STACREC in June 2002 **recommended** that *in future years the Secretariat compile the reports of research activities as a working document for the June Meeting, and that it then be presented to STACREC as a SCS document at its September Meeting.*

The attached Tables were drafted as Scientific Council Working Papers during the June 2006 Scientific Council Meeting and updated/corrected through correspondence during the summer.

These Tables are now being forwarded for final review by STACREC (with the exception of shrimp stocks), and be checked for accuracy and completeness. These Tables will be finalized and printed as a SCS Document based on comments forwarded to the NAFO Secretariat during the September 2006 Meeting.

Available data from the commercial fisheries related to stock assessment (2005). (+ means data available).

| Stock                     | Biological Sampling  |       |      |     |        |     |                |          |
|---------------------------|----------------------|-------|------|-----|--------|-----|----------------|----------|
|                           | Country <sup>1</sup> | Catch | CPUE | Sex | Length | Age | Individual Wt. | Maturity |
| 3M Cod                    | EU/PRT               | +     |      |     |        |     |                |          |
|                           | RUS                  |       |      |     | +      |     |                |          |
| 3NO Cod                   | CAN                  | +     |      |     | +      | +   |                |          |
|                           | EU/ESP               | +     |      |     | +      |     |                |          |
|                           | EU/PRT               | +     |      |     |        |     |                |          |
|                           | EU/EST               | +     |      |     |        |     |                |          |
|                           | FR (SPM)             | +     |      |     |        |     |                |          |
|                           | RUS                  | +     |      |     | +      |     |                |          |
| SA 1 Redfish              | GRL                  | +     |      |     |        |     |                |          |
| 3M Redfish                | EU/PRT               | +     |      | +   | +      |     |                |          |
|                           | EU/ESP               | +     |      | +   | +      |     |                |          |
|                           | EU/LTU               | +     |      |     |        |     |                |          |
|                           | EU/EST               | +     |      |     |        |     |                |          |
|                           | EU/LVA               | +     |      |     |        |     |                |          |
|                           | JPN                  | +     |      | +   |        |     |                |          |
|                           | RUS                  | +     |      | +   | +      |     |                |          |
| 3LN Redfish               | CAN(N)               | +     |      |     |        |     |                |          |
|                           | EU/PRT               | +     |      |     |        |     |                |          |
|                           | EU/ESP               | +     |      | +   | +      |     |                |          |
|                           | EU/LTU               | +     |      |     |        |     |                |          |
|                           | EU/EST               | +     |      |     |        |     |                |          |
|                           | RUS                  | +     |      | +   | +      |     |                |          |
| 3O Redfish                | CAN                  | +     | +    | +   | +      |     |                | +        |
|                           | EU/PRT               | +     |      |     |        |     |                |          |
|                           | EU/ESP               | +     |      | +   | +      |     |                |          |
|                           | RUS                  | +     |      | +   | +      |     |                | +        |
| 3M American plaice        | EU/PRT               | +     |      |     |        |     |                |          |
|                           | EU/ESP               | +     |      | +   | +      |     |                |          |
|                           | EU/EST               | +     |      |     |        |     |                |          |
|                           | EU/LTU               | +     |      |     |        |     |                |          |
|                           | RUS                  | +     |      |     | +      |     |                |          |
| 3LNO American plaice      | CAN                  | +     |      |     | +      | +   |                |          |
|                           | RUS                  | +     |      |     | +      |     |                |          |
|                           | EU/PRT               | +     |      |     |        |     |                |          |
|                           | EU/ESP               | +     |      | +   | +      |     |                |          |
|                           | EU/EST               | +     |      |     |        |     |                |          |
|                           | EU/LTU               | +     |      |     |        |     |                |          |
|                           | JPN                  | +     |      |     |        |     |                |          |
|                           | FR (SPM)             | +     |      |     |        |     |                |          |
| 3NO Witch flounder        | CAN                  | +     | +    | +   | +      |     |                |          |
|                           | EU/PRT               | +     |      |     |        |     |                |          |
|                           | EU/ESP               | +     |      | +   | +      |     | +              |          |
|                           | RUS                  | +     |      |     | +      |     |                |          |
| 2J+3KL Witch flounder     | CAN                  | +     | +    | +   | +      |     |                |          |
|                           | EU/PRT               | +     |      |     |        |     |                |          |
|                           | EU/ESP               | +     |      |     |        |     |                |          |
|                           | RUS                  | +     |      |     | +      |     |                |          |
| 3LNO Yellow-tail flounder | CAN                  | +     | +    | +   | +      |     | +              | +        |
|                           | FRA                  | +     |      |     |        |     |                |          |
|                           | RUS                  | +     |      |     | +      |     |                |          |
|                           | OTHERS               | +     |      |     | +      |     |                |          |

Available data from the commercial fisheries related to stock assessment (2005). (+ means data available).  
(continued).

| Stock                               | Biological Sampling  |                   |      |     |        |     |                |          |
|-------------------------------------|----------------------|-------------------|------|-----|--------|-----|----------------|----------|
|                                     | Country <sup>1</sup> | Catch             | CPUE | Sex | Length | Age | Individual Wt. | Maturity |
| SA 0 + 1B-F<br>Greenland<br>halibut | CAN                  | +                 | +    |     | +      |     |                |          |
|                                     | NOR                  | +                 | +    |     | +      |     |                |          |
|                                     | GRL                  | +                 | +    |     |        |     |                |          |
|                                     | EU/DEU               |                   | +    | +   |        |     |                |          |
|                                     | RUS                  | +                 | +    | +   | +      | +   | +              | +        |
| SA 1A Green-<br>land halibut        | GRL                  | +                 |      | +   | +      | +   | +              | +        |
|                                     | RUS                  | +                 |      | +   | +      | +   | +              | +        |
| SA 2+3 Green-<br>land halibut       | CAN                  | +                 | +    | +   | +      | +   |                | +        |
|                                     | EU/PRT               | +                 | +    | +   | +      |     |                |          |
|                                     | EU/ESP               | +                 |      | +   | +      | +   |                |          |
|                                     | EU/EST               | +                 |      |     |        |     |                |          |
|                                     | EU/LVA               | +                 |      |     |        |     |                |          |
|                                     | EU/LTU               | +                 |      |     |        |     |                |          |
|                                     | FRA (SPM)            | +                 |      |     |        |     |                |          |
|                                     | FRO                  | +                 |      |     |        |     |                |          |
|                                     | JPN                  | +                 |      |     |        |     |                |          |
|                                     | RUS                  | +                 |      | +   | +      |     | +              | +        |
| SA 0+1<br>Roundnose<br>Grenadier    | NOR                  | +                 |      |     |        |     |                |          |
|                                     | EU/DEU               | +                 |      |     |        |     |                |          |
|                                     | GRL                  | +                 |      |     |        |     |                |          |
| SA 2+3<br>Roundnose<br>grenadier    | EU/PRT               | +                 |      |     |        |     |                |          |
|                                     | EU/ESP               | +                 |      |     |        |     |                |          |
|                                     | EU/EST               | +                 |      |     |        |     |                |          |
|                                     | JPN                  | +                 |      |     |        |     |                |          |
|                                     | RUS                  | +                 |      |     |        |     |                |          |
| SA 2+3 Rough-<br>head grenadier     | CAN-N                | +                 |      |     |        |     |                |          |
|                                     | EU/PRT               | +                 |      | +   | +      |     |                |          |
|                                     | EU/ESP               | +                 |      | +   | +      | +   | +              |          |
|                                     | EU/EST               | +                 |      |     |        |     |                |          |
|                                     | EU/LTU               | +                 |      |     |        |     |                |          |
|                                     | RUS                  | +                 |      | +   | +      |     |                |          |
| 3NO Capelin                         |                      | No available data |      |     |        |     |                |          |
| SA 3+4 Squid                        | CAN                  | +                 |      |     |        |     |                |          |
| SA 1 Other<br>finfish               | GRL                  | +                 |      |     |        |     |                |          |
|                                     | RUS                  | +                 |      | +   | +      |     | +              | +        |
| 3NOPs White<br>hake                 | CAN                  | +                 | +    | +   | +      |     | +              | +        |
|                                     | EU/PRT               | +                 |      |     | +      |     |                |          |
|                                     | EU/ESP               | +                 |      |     | +      |     |                |          |
|                                     | RUS                  | +                 |      | +   | +      |     |                | +        |
| 3LNOPs<br>Thorny skate              | CAN                  | +                 | +    | +   | +      |     | +              | +        |
|                                     | EU/PRT               | +                 |      |     | +      |     |                |          |
|                                     | EU/ESP               | +                 |      |     | +      |     | +              | +        |
|                                     | RUS                  | +                 |      | +   | +      |     |                | +        |
| 3M Shrimp                           | GRL                  | +                 | +    |     |        |     |                |          |
| 3LNO Shrimp                         | GRL                  | +                 | +    |     |        |     |                |          |
| Denmark Strait<br>Shrimp            | GRL                  | +                 | +    |     |        |     |                |          |
| SA 0+1 Shrimp                       | GRL                  | +                 | +    |     |        |     |                |          |

<sup>1</sup> Country abbreviations NAFO 3-Alpha.

Inventory of biological surveys conducted in the NAFO Area in 2005.

| Subarea/Division                 | Country       | Month | Type of survey                                       | No. of sets |
|----------------------------------|---------------|-------|------------------------------------------------------|-------------|
| <b>Stratified-Random Surveys</b> |               |       |                                                      |             |
| 3P                               | CAN-N         | 4-5   | Multi-species trawl survey                           | 194         |
| 3LMNO                            | CAN-N         | 5-6   | Multi-species survey                                 | 318         |
| 2J3KLMNO                         | CAN-N         | 10-12 | Multi-species survey                                 | 653         |
| 3NO                              | EU/ESP        | 6     | Groundfish                                           | 121         |
| 3M                               | EU/ESP&EU/PRT | 7     | Groundfish                                           | 176         |
| <b>Other Surveys</b>             |               |       |                                                      |             |
| 3K                               | CAN-N         | 1     | Bitter crab disease investigations                   | n/a         |
| 3K                               | CAN-N         | 1     | Overwintering cod habitat                            | n/a         |
| 3K                               | CAN-N         | 9     | White Bay/Notre Dame Bay snow crab trawl/trap survey | n/a         |
| 3KL                              | CAN-N         | 4-5   | Capelin Distribution & Abundance                     | n/a         |
| 3KLNO                            | CAN-N         | 10-11 | Physical/Biological Oceanography                     | n/a         |
| 3L                               | CAN-N         | 1     | Cod habitat and acoustics                            | n/a         |
| 3L                               | CAN-N         | 5-9   | Larval Fish Growth                                   | n/a         |
| 3L                               | CAN-N         | 5-6   | Avalon snow crab trawl/trap survey                   | n/a         |
| 3L                               | CAN-N         | 7     | Fish/Seabird Interactions                            | n/a         |
| 3L                               | CAN-N         | 7-8   | Bonavista Bay snow crab trawl/trap survey            | n/a         |
| 3L                               | CAN-N         | 9-10  | Conception Bay snow crab trawl/trap survey           | n/a         |
| 3LMNO                            | CAN-N         | 4     | Physical & Biological Oceanography                   | n/a         |
| 3P                               | CAN-N         | 8     | Sea cucumber survey                                  | n/a         |
| 3P                               | CAN-N         | *     | Sea scallop survey                                   | n/a         |
| 3Ps                              | CAN-N         | 4     | Inshore pre-spawning cod trawl/acoustics survey      | n/a         |
| 3Ps                              | CAN-N         | 6     | Inshore cod tagging                                  | n/a         |
| 3Ps                              | CAN-N         | 11    | Cod Tagging/tagging mortality                        | n/a         |

Biological surveys planned for the NAFO Area in 2006 and early-2007.

| Subarea/Division                 | Country       | Type of Survey                         | Dates               |
|----------------------------------|---------------|----------------------------------------|---------------------|
| <b>Stratified-random Surveys</b> |               |                                        |                     |
| 0A                               | CAN-CA        | Multispecies                           | Aug-Oct 2006        |
| 1A-1F                            | GRL           | Bottom trawl survey for shrimp         | Jun-Aug 2006        |
| 1CD                              | GRL           | Deep sea bottom trawl                  | Sep 2006            |
| 2HJ+3KLMNO                       | CAN-N         | Multi-species trawl survey             | Oct 3-Dec 19, 2006  |
| 3LNO                             | CAN-N         | Multi-species trawl survey             | May 24-Jul 30, 2006 |
| 3Ps                              | CAN-N         | Multi-species trawl survey             | Apr 11-May 23, 2006 |
| 3NO                              | EU/ESP        | Groundfish                             | Jun 2006            |
| 3M                               | EU/ESP-EU/PRT | Groundfish                             | Jul 2006            |
| 3L                               | EU/ESP        | Groundfish                             | Aug 2006            |
| 3LMNO                            | RUS           | Multi-species, trawl-acoustic survey   | May-June 2007       |
| 4X+5YZ                           | USA           | Ecosystems monitoring                  | Jan 24-Feb 8, 2006  |
| 4X+5YZ+6ABC                      | USA           | Spring bottom trawl                    | Mar 6-Apr 28, 2006  |
| 4X+5YZ+6ABC                      | USA           | Ecosystems monitoring                  | May 30-Jun 16, 2006 |
| 4X+5YZ+6ABC                      | USA           | Ecosystems monitoring                  | Aug 14-Sep 1, 2006  |
| 4X+5YZ+6ABC                      | USA           | Autumn bottom trawl                    | Sep 5-Oct 25, 2006  |
| 4X+5YZ+6ABC                      | USA           | Autumn bottom trawl survey calibration | Sep 25-Oct 25, 2006 |
| 4X+5YZ+6ABC                      | USA           | Ecosystems monitoring                  | Oct 23-Nov 9, 2006  |
| 4X+5YZ+6ABC                      | USA           | Ecosystems monitoring                  | Jan 22- Feb 9, 2007 |
| 5Y,Z+6ABC                        | USA           | Winter bottom trawl                    | Feb 5-Mar 2, 2007   |
| 5Y,Z+6ABC                        | USA           | Winter bottom trawl survey calibration | Feb 5-Mar 2, 2007   |
| 4X+5YZ+6ABC                      | USA           | Spring bottom trawl                    | Mar 5-Apr 27, 2007  |
| 4X+5YZ+6ABC                      | USA           | Spring bottom trawl survey calibration | Mar 5-Apr 27, 2007  |
| 5Y,Z                             | USA           | Northern shrimp                        | Jul 23-Aug 6, 2006  |
| 5Z+6ABC                          | USA           | Sea scallop survey                     | Jul 10-Aug 11, 2006 |
| 5Z+6ABC                          | USA           | Winter bottom trawl                    | Feb 6-Mar 3, 2006   |
| 6ABC                             | USA           | Apex predators (demersal sharks)       | Apr 2-May 18, 2007  |

Biological surveys planned for the NAFO Area in 2006 and early-2007 (continued).

| Subarea/Division     | Country | Type of Survey                                        | Dates                                                       |
|----------------------|---------|-------------------------------------------------------|-------------------------------------------------------------|
| <b>Other Surveys</b> |         |                                                       |                                                             |
| 1A                   | GRL     | Gill net survey for GHL                               | Jul 2006                                                    |
| 1A                   | GRL     | Long line survey for GHL                              | Aug 2006                                                    |
| 1B+D                 | GRL     | Gill net survey for small cod                         | Jun-Jul 2006                                                |
| 1F+2GHJ              | RUS     | Redfish, selectivity of trawl                         | Jul-Sep 2006                                                |
| 2+3LMNO              | CAN-N   | Calanus investigations                                | Jun 6-20 & Aug 20-Sep 2, 2006                               |
| 2+3LMNO              | CAN-N   | Forage fish on the SE Shoal                           | Jun 21-Jul 9, 2006                                          |
| 3K                   | CAN-N   | White/Notre Dame Bay snow crab trap/trawl survey      | Aug 30-Sep 16, 2006                                         |
| 3KL                  | CAN-N   | Capelin acoustic/trawl survey                         | May 17-Jun 4, 2006                                          |
| 3KLNO                | CAN-N   | Oceanography                                          | Nov 27-Dec 15, 2006                                         |
| 3L                   | CAN-N   | Seabird Interactions                                  | Aug 1-Aug 19, 2006                                          |
| 3L                   | CAN-N   | Cod Tagging/Telemetry                                 | Apr 26-May 3, Jun 3-11,<br>Jun 27-Jul 9, Nov 24-Dec 1, 2006 |
| 3L                   | CAN-N   | Trinity Bay Ecosystem Survey                          | Jul 10-28, Sep 21-30 2006<br>Jan 8-24, 2007                 |
| 3L                   | CAN-N   | Seabed Classification                                 | Oct 24-Nov 3, 2006                                          |
| 3L                   | CAN-N   | Avalon snow crab trawl/trap survey                    | May 10-23, 2006                                             |
| 3L                   | CAN-N   | Bonavista Bay snow crab trap/trawl survey             | Aug 1-12, 2006                                              |
| 3L                   | CAN-N   | Conception Bay snow crab trap/trawl survey            | Oct 6-18, 2006                                              |
| 3L                   | CAN-N   | Bonavista Bay cod habitat and acoustics               | Nov 22-Dec 14, 2006                                         |
| 3LMNO                | CAN-N   | Physical and biological oceanographic survey          | Apr 26-May 9, 2006                                          |
| 3LMNO                | CAN-N   | Physical and biological oceanographic survey          | Jul 10-28 2006                                              |
| 3LNO                 | CAN-N   | Hibernia Env. Monitoring                              | Jul 10-Jul 24, 2006                                         |
| 3MO                  | RUS     | Redfishes, selectivity of trawl                       | Mar-Jul 2007                                                |
| 3O                   | RUS     | Redfishes, selectivity of trawl                       | Jul-Dec 2006                                                |
| 3O                   | RUS     | Redfishes, selectivity of trawl                       | Jan-Feb 2007                                                |
| 4X+5YZ               | USA     | Atlantic herring hydroacoustic                        | Sep 4-Oct 13, 2006                                          |
| 4X,W+5YZ             | USA     | Northern right whale and large whale biology          | Jul 31-Aug 17, 2006                                         |
| 5YZ+6A               | USA     | Standardized trawl survey protocol development        | Sep 13-22, 2006                                             |
| 5YZ+6ABC             | USA     | Trawl survey calibration site experiments (two ships) | Nov 1-19, 2006                                              |
| 5YZ+6ABC             | USA     | Trawl survey calibration site experiments (two ships) | Apr 2-May 18, 2007                                          |
| 5Z                   | USA     | Survey trawl gear exp.                                | Feb 13-24, 2006                                             |
| 5Z                   | USA     | Survey trawl gear exp.                                | Mar 13-31, 2006                                             |
| 5Z+6A                | USA     | Benthic habitat                                       | Aug 21- Sep 1, 2006                                         |
| 5Z+6AB               | USA     | Hydroacoustics exp.                                   | Apr 17-28, 2006                                             |
| 5Z+6AB               | USA     | Thresher shark biology                                | May 30-Jun 9, 2006                                          |
| 5Z+6ABC              | USA     | Northern right whale & pelagic cetaceans              | May 1-26, 2006                                              |
| 5Z+6ABC              | USA     | Sea scallop gear exp.                                 | Jan 9-20, Jan 30-Feb 3, 2006                                |
| 5Zu+6BD              | USA     | Deepwater biodiversity                                | Jun 12-23, 2006                                             |
| 5Z+6ABCD             | USA     | Pilot whale biopsy                                    | Jul 5-28, 2006                                              |