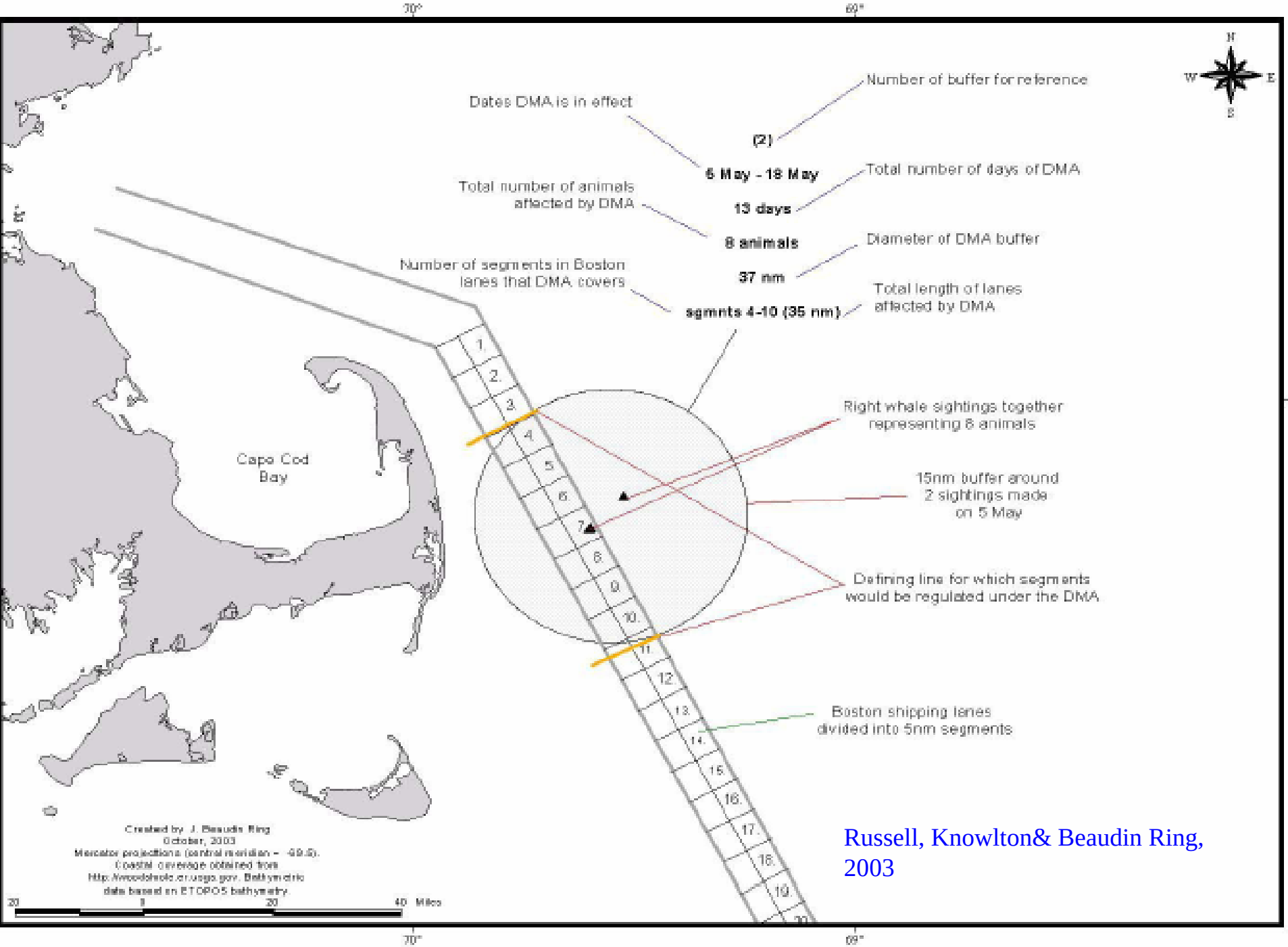
Dynamic Management Areas (DMAs) 1998-2002 – Retrospective Analysis

- **From** ***Vessel Traffic-Management Scenarios Based on Recommended Measures to Reduce Ship Strikes of North Atlantic Right Whales*** – a report submitted to the NMFS Northeast Implementation Team by B. Russell, A. Knowlton & J.Beaudin Ring, December 2003
- **Analysis of sightings from 1998 –2002 (& previous years)**

Trigger Events For DMA per Russell, Knowlton & Beaudin Ring, 2003)

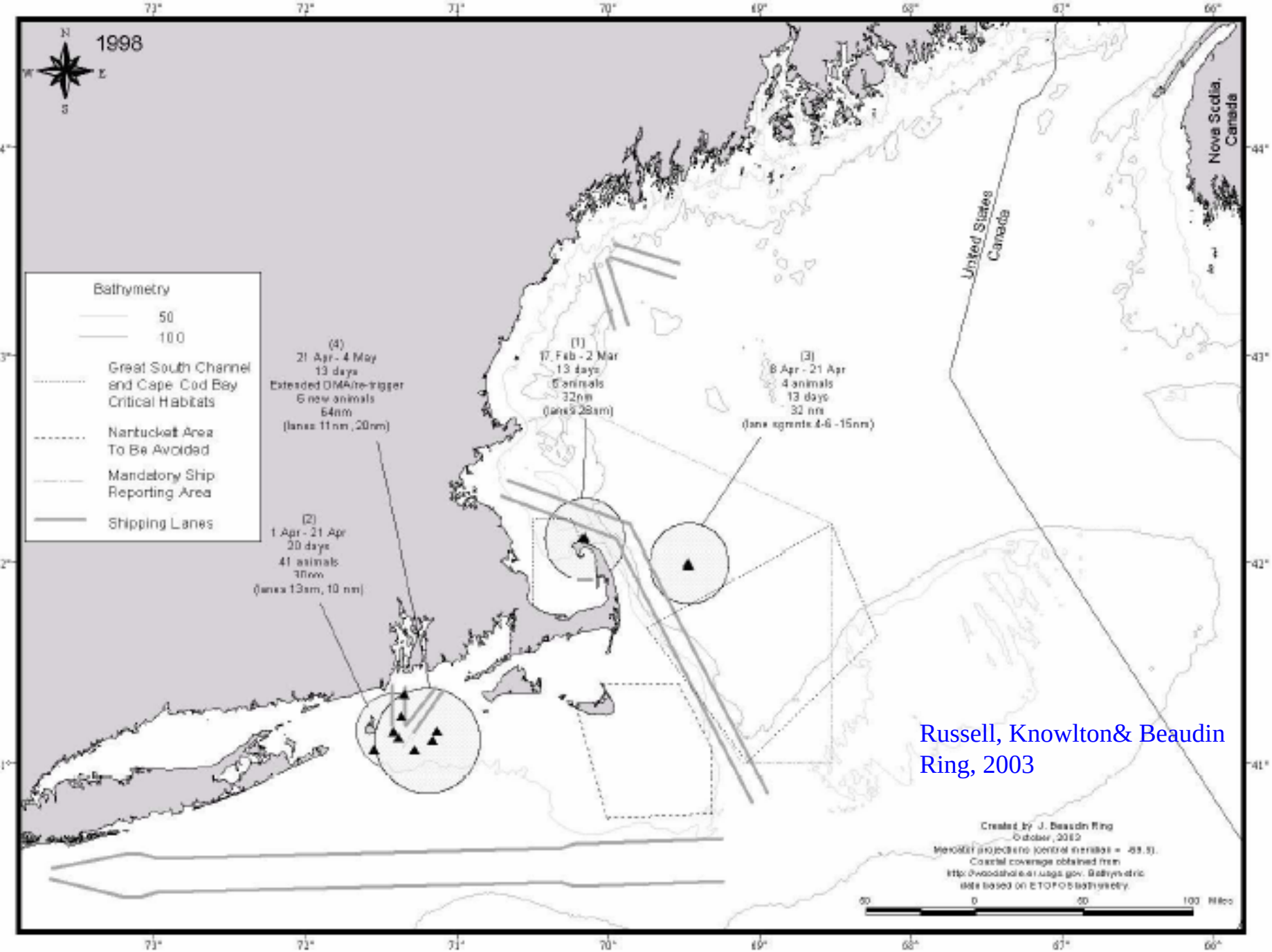
- **Trigger Events :**
  - 3 or more animals
  - 3 animals w/in 10 nm of each other
  - mother/calf pair w/in 15 nm of shipping lane
  - 2 or more animals closer than 10 nm to each other w/in shipping lane if resident or feeding
  - 1 or more animals in the Cape Cod Canal or any harbor area



Russell, Knowlton& Beaudin Ring, 2003

DMAs (Russell et al, 2003)

- Circle with 15nm radius around periphery of sightings
- 13 day duration
- Addt'l sightings during the DMA in same area, period extended another 13 days

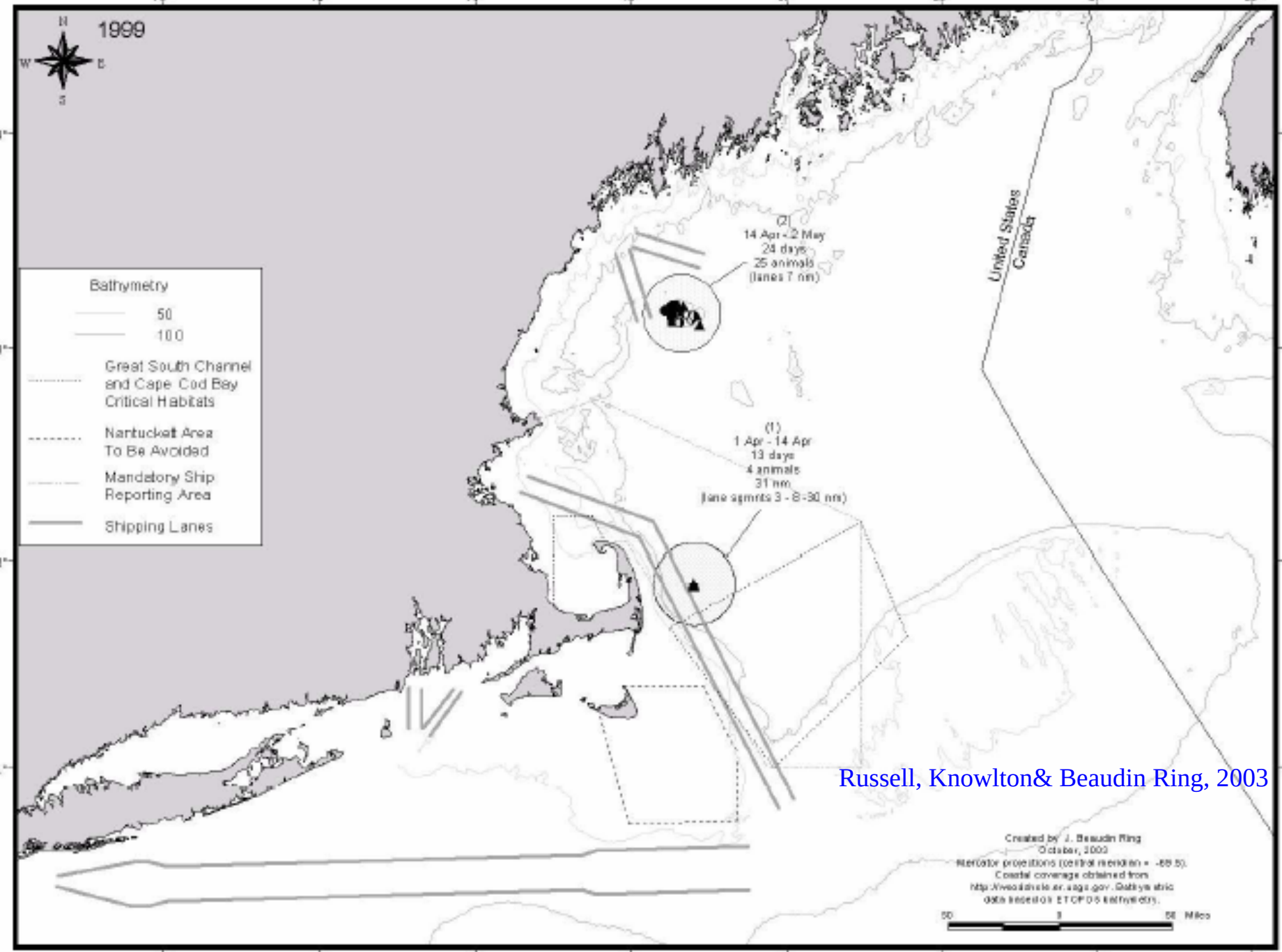


Russell, Knowlton& Beaudin Ring, 2003

Figu

1998

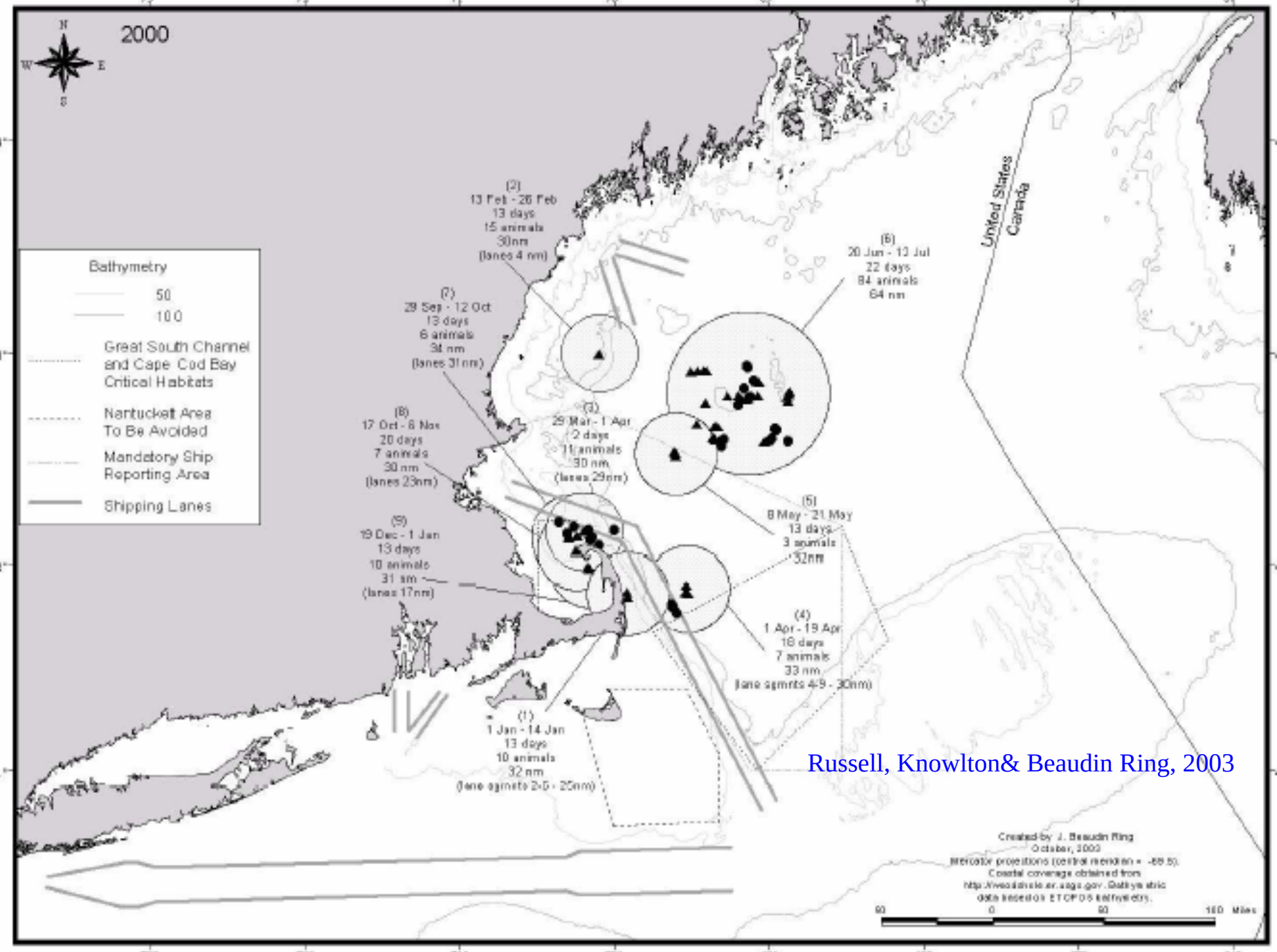
- 4 retrospective DMAs (Boston TSS, GSC/TSS & Providence)
  - Boston TSS (1) 17 Feb – 2 Mar
  - Providence (2) 1 Apr – 4 May
  - GSC/TSS (1) 8 –21 April



Russell, Knowlton& Beaudin Ring, 2003

1999

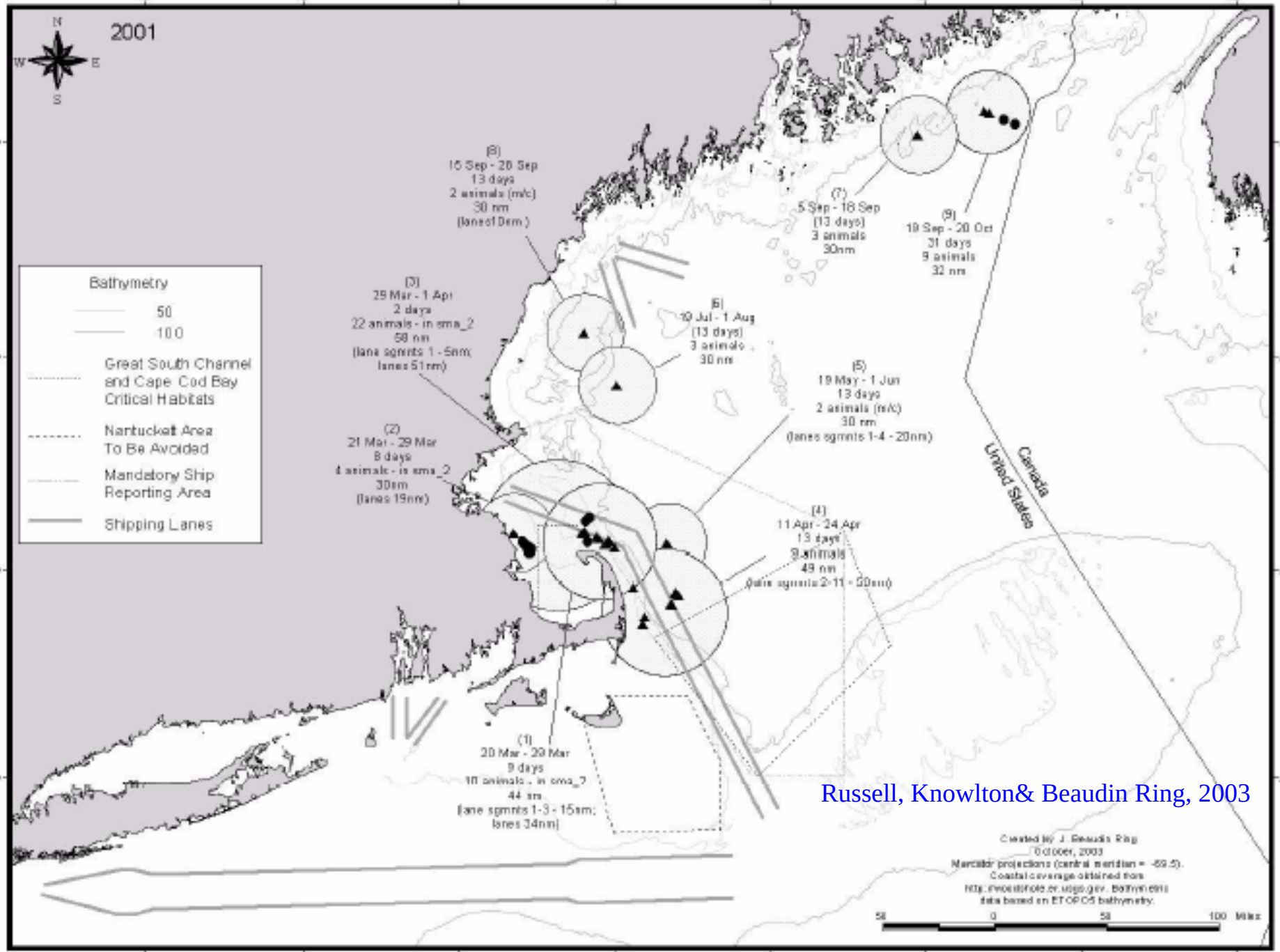
- 2 retrospective DMAs (GSC/TSS & Portland approach)
  - GSC/TSS (1) 1 – 14 April
  - Portland approach (1) 14 Apr – 2 May



Russell, Knowlton& Beaudin Ring, 2003

2000

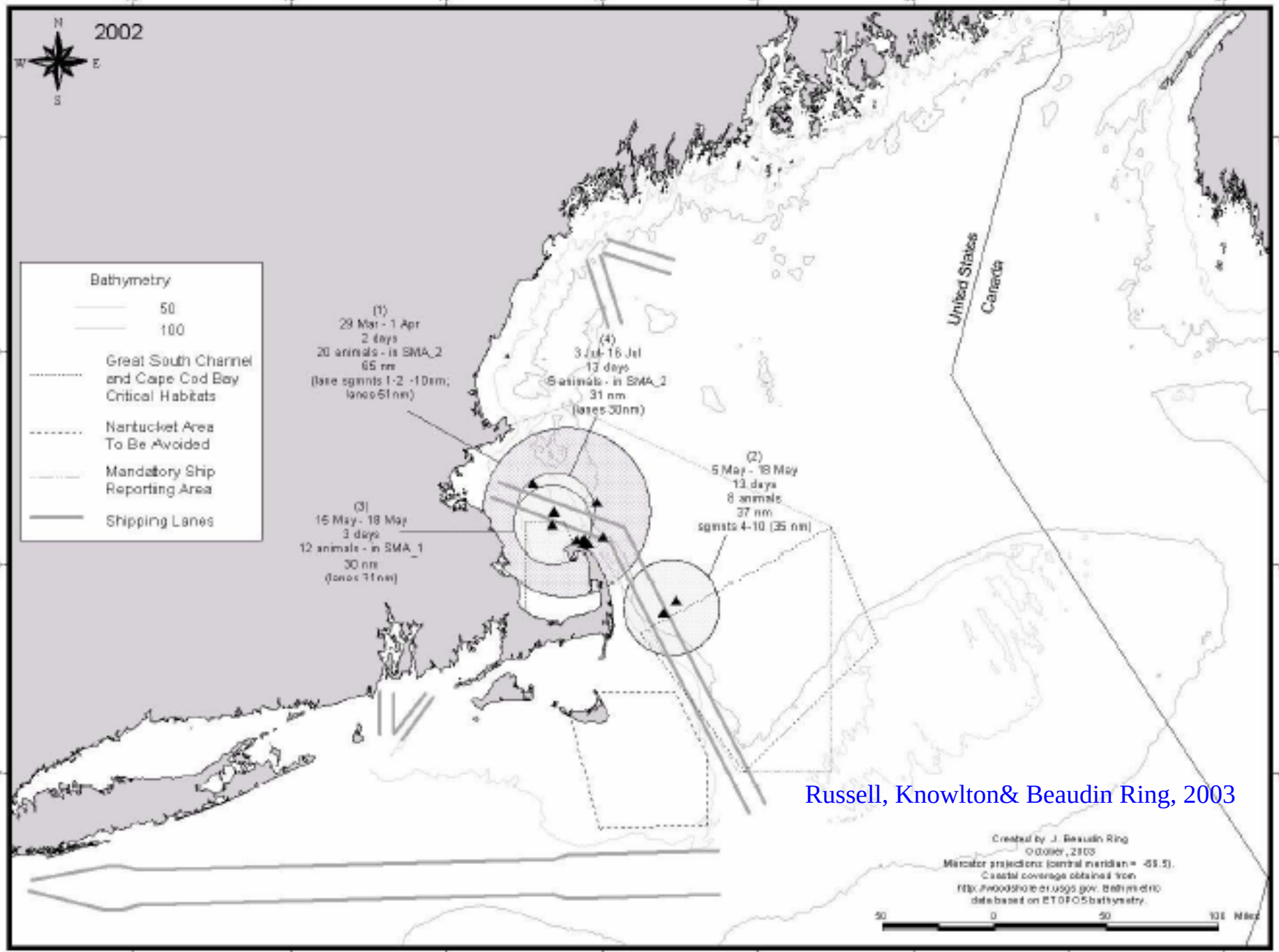
- 9 retrospective DMAs (Boston TSS, GSC/TSS , Portland app. & GOM)
  - Boston TSS (4) 29 Mar- 1Apr, 29Sept –6 Nov, 19 –31 Dec
  - GSC/TSS (2) 1-14 Jan , 1-19 April
  - Portland approach (1) 13 –26 Feb
  - GOM (2) 8-21 May, 20 June- 12 Jul



Russell, Knowlton& Beaudin Ring, 2003

2001

- 9 retrospective DMAs (Boston TSS, GSC/TSS, Portland & GOM)
  - Boston TSS (3) 20 Mar - 1 Apr
  - GSC/TSS (2) 11-24 April, 19 May –1 June
  - Portland approach (2) 19 Jul – 1 Aug, 15 – 29 Sept
  - GOM(2) 5 Sept – 20 Oct



Russell, Knowlton& Beaudin Ring, 2003

2002

- 4 retrospective DMAs (Boston TSS &GSC/TSS)
  - Boston TSS (3) 17 Feb – 2 Mar
  - GSC/TSS (1) 5 –18 May

Potential DMAs for Boston Based on 1998 –2002 Analysis

(Russell et al, 2003)

- **Northern approach(GOM) – 16 nm for 16 days/yr**
- **GSC/MA Bay approach – 27nm for 39 days/yr**
- **Southern approach (to/from CCB) – none**