

Rare Mixed-Species Association Between **Sperm Whales**, and Risso's and Northern Right Whale Dolphins off the Southern California Bight:

Kleptoparasitism and Social Parasitism?

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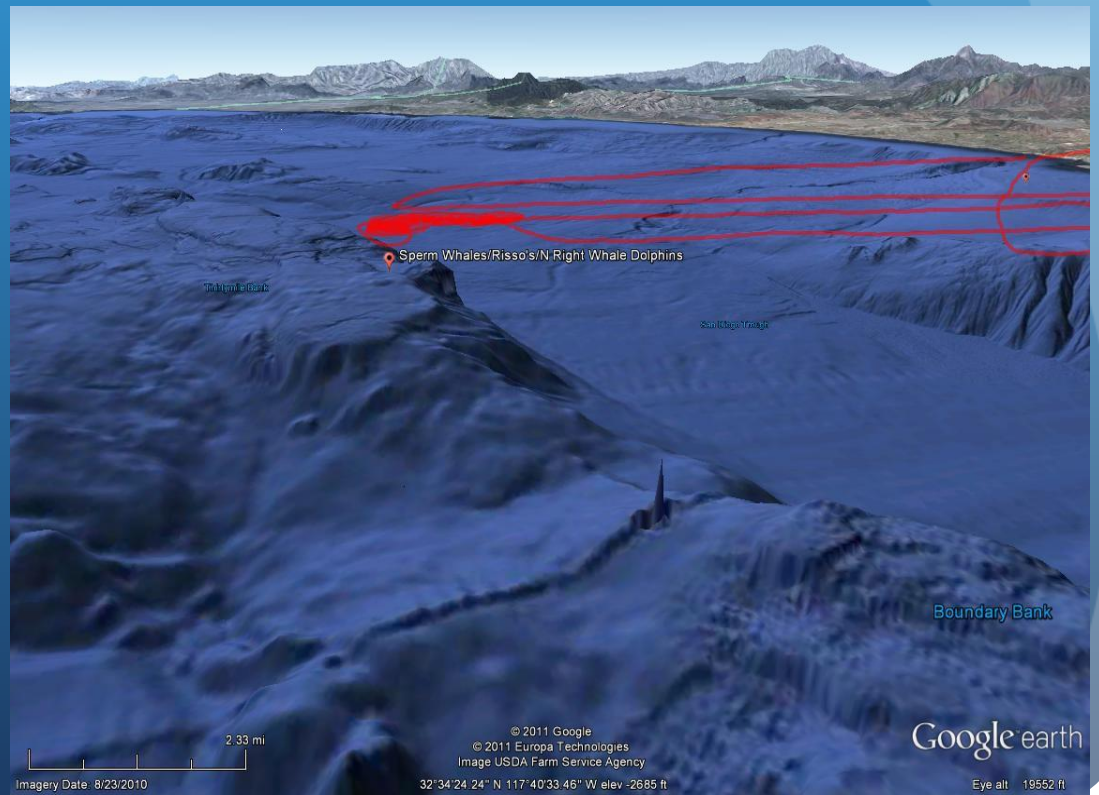


GALVESTON

Risso's harassing adult sperm whales N right whale dolphins (NRWD) nearby

- 14 May 2011 - 67 min
 - 20 Sperm whales (16 adults & 4 calves)
 - 11 Risso's
 - 50 NRWD
- Video & Photos

24 km of San Diego, CA, US



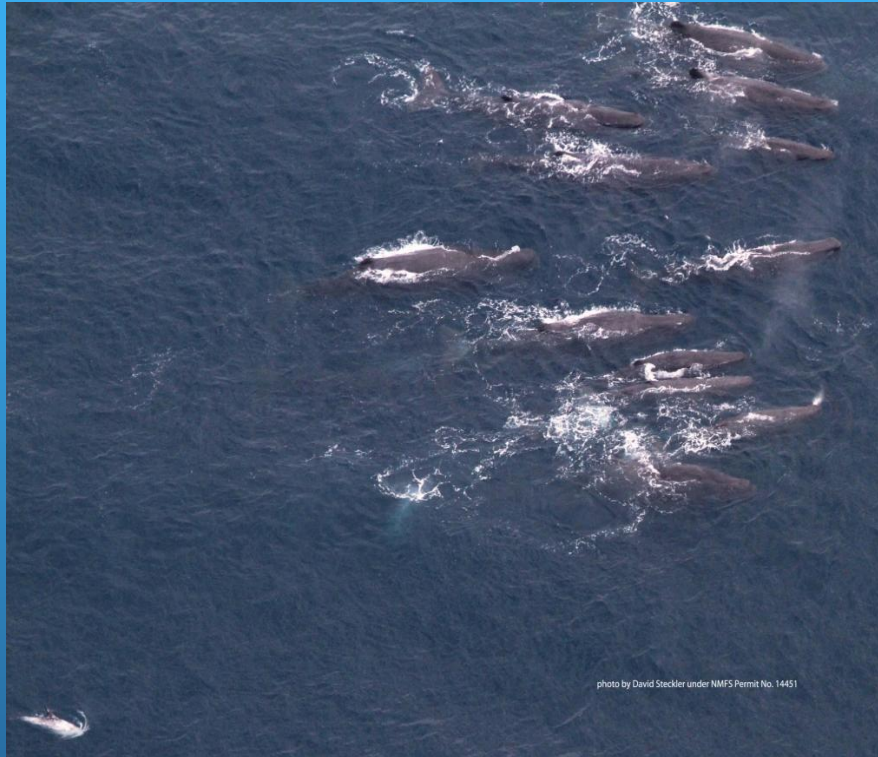
Initially spread out



Dolphins intermix



photo by David Steckler under NMFS Permit No. 14451



Some Risso's approach from rear



Whales close ranks - calves in center



photo by David Steckler under NMFS Permit No. 14451

Playing “chicken”

1

Risso's charge
sperm whale
head,



photo by David Steckler under NMFS Permit No. 14451

2

Sperm whale
opens mouth,
drops jaw,



photo by David Steckler under NMFS Permit No. 14451

3

Risso's sprints
away



photo by David Steckler under NMFS Permit No. 14451

4



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7x = Risso's charges ADULT whale
• 4 of 7 = whale opens mouth

1 Risso's = 4x in a row

2x Risso's breach near whale head



photo by David Steckler under NMFS Permit No. 14451

Risso's never charged calf or lone adult that remained at surface during two 20-min whale dives



photo by David Steckler under NMFS Permit No. 14451

Kleptoparasitism?

1. Risso's aggressive *only to adults* that recently dove
 - also Canary Islands
2. Whales *defensive*
3. Pilot & false killer whales harass sperm whales
 - squid flesh nearby
4. All eat squid

Social Parasitism?

N right whale dolphins (NRWD)

- On periphery
- Closely follow Risso's
 - other incidents
- Anticipating squid remains?

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