### MARINE POLLUTION BULLETIN

## The International Journal for Marine Environmental Scientists, Engineers, Administrators, Politicians and Lawyers.

**Sponsored Supplements and/or Commercial Reprints**: For more information please contact Elsevier Life Sciences Commercial Sales, Radarweg 29, 1043 NX Amsterdam, The Netherlands; phone: (+31) (20) 485 2939/2059; e-mail: LSCS@elsevier.com

**Advertising information**: Advertising orders and enquiries can be sent to: **USA, Canada and South America:** Mr Tino DeCarlo, The Advertising Department, Elsevier Inc., 360 Park Avenue South, New York, NY 10010-1710, USA; phone: (+1) (212) 633 3815; fax: (+1) (212) 633 3820; e-mail: t.decarlo@elsevier.com. **Europe and ROW**: James Kenney, Advertising Sales Manager, Elsevier Ltd, 84 Theobald's Road, London, WC1X 8RR, UK; phone: (+44) (0) 20 7611 4494; fax: (+44) (0) 20 7611 4463; e-mail: j.kenney@elsevier.com

Orders, claims, and journal enquiries: please contact the Regional Sales Office nearest you:

**St. Louis**: Elsevier, Customer Service Department, 11830 Westline Industrial Drive, St. Louis, MO 63146, USA; phone: (877) 8397126 [toll free within the USA]; (+1) (314) 4537076 [outside the USA]; fax: (+1) (314) 5235153; e-mail: JournalCustomerService-usa@elsevier.com

**Amsterdam:** Elsevier, Customer Service Department, PO Box 211, 1000 AE Amsterdam, The Netherlands; phone: (+31) (20) 4853757; fax: (+31) (20) 4853432; e-mail: JournalsCustomerServiceEMEA@elsevier.com

**Tokyo:** Elsevier, Customer Service Department, 4F Higashi-Azabu, 1-Chome Bldg, 1-9-15 Higashi-Azabu, Minato-ku, Tokyo 106-0044, Japan; phone: (+81) (3) 5561 5037; fax: (+81) (3) 5561 5047; e-mail: JournalsCustomerServiceJapan@elsevier.com

**Singapore:** Elsevier, Customer Service Department, 3 Killiney Road, #08-01 Winsland House I, Singapore 239519; phone: (+65) 63490222; fax: (+65) 67331510; e-mail: JournalsCustomerServiceAPAC@elsevier.com

© The paper used in this publication meets the requirements of ANSI/NISO Z39.48-1992 (Permanence of Paper)

#### © 2009 Elsevier Ltd. All rights reserved.

This journal and the individual contributions contained in it are protected under copyright by Elsevier Ltd., and the following terms and conditions apply to their use:

#### **Photocopying**

Single photocopies of single articles may be made for personal use as allowed by national copyright laws. Permission of the Publisher and payment of a fee is required for all other photocopying, including multiple or systematic copying, copying for advertising or promotional purposes, resale, and all forms of document delivery. Special rates are available for educational institutions that wish to make photocopies for non-profit educational classroom use.

For information on how to seek permissions visit http://www.elsevier.com/permissions or call: (+44) 1865 843830 (UK) / (+1) 215 239 3804 (USA).

#### **Derivative works**

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the Publisher is required for resale or distribution outside the institution.

Permission of the Publisher is required for all other derivative works, including compilations and translations (please consult www.elsevier.com/permissions).

#### **Electronic storage or usage**

Permission of the Publisher is required to store or use electronically any material contained in this journal, including any article or part of an article (please consult www.elsevier.com/permissions).

Except as outlined above, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of the Publisher.

Address permissions requests to: Elsevier Rights Department, at the fax and e-mail addresses noted above.

#### **Notice**

No responsibility is assumed by the Publisher for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions or ideas contained in the material herein. Because of rapid advances in the medical sciences, in particular, independent verification of diagnoses and drug dosages should be made.

Although all advertising material is expected to conform to ethical (medical) standards, inclusion in this publication does not constitute a guarantee or endorsement of the quality or value of such product or of the claims made of it by its manufacturer.

# MARINE POLLUTION BULLETIN

Volume 58

Issue 2

February 2009

#### **Editor**

#### **Charles Sheppard**

Department of Biological Sciences, University of Warwick Coventry CV4 7AL, UK

e-mail: charles.sheppard@warwick.ac.uk

#### **Baseline Editor**

#### **B. Richardson**

City University of Hong Kong, Department of Biology and Chemistry 83 Tat Chee Avenue, Kowloon, Hong Kong, Republic of China e-mail: baseline@cityu.edu.hk

#### **News Editor**

#### P. Kingston

Department of Biological Sciences, Heriot-Watt University Riccarton, Edinburgh, EH14 4AS, UK e-mail: p.f.kingston@hw.ac.uk

#### **Editorial Board**

A. Borja, Pasaia, Spain

P. Chapman, Vancouver, BC, Canada

G. Cognetti, Pisa, Italy

J.-C. Dauvin, Lille, France

M.H. Depledge, Plymouth, UK

M. Elliott, Hull, UK

T. Galloway, Exeter, UK

D.A. Holdway, Ontario, Canada

P. Hutchings, Sydney, Australia

R.J. Law, Lowestoft, UK

M. Martin, Mariposa, CA, USA

T. McClanahan, Mombassa, Kenya

**A.D. McIntyre,** Aberdeen, UK

B. Morton, Hong Kong

I. Pearce, Falmouth, MA, USA

D.J.H. Phillips, Vidauban, France

I.W. Readman, Plymouth, UK

M.H. Schleyer, Durban, South Africa

S. Tanabe, Matsuyama, Japan

R. Tjeerdema, California, USA

V. Wepener, Johannesberg, South Africa

H.T. Yap, Quezon City, The Philippines



ELSEVIE

58(2) 167-316 (2009)

ISSN 0025-326X

### **Contents**

Editorial	
Resources pressures and small island states	167
News Severn Barrage 'only way to avert a catastrophe for wildlife' • Over 80% of China's sea areas suffer from pollution •	
Abrupt climate change may come sooner than expected Fish guts explain marine carbon cycle mystery • Fur seals	170
continue decline • Biofuel's algal Green Bullet Evidence of drop in coral growth on Great Barrier Reef since 1990 • Coral reefs recovering four years after	171
tsunami • US plans new round of oil and gas leases Environmental cost of runway de-icers	172 173
<b>News-in-Brief</b> USA • Malaysia	173
Viewpoint	
Floating nuclear power plants: Potential implications for radioactive pollution of the northern marine environ-	454
ment	174
Review Guidelines for seagrass restoration: Importance of habitat selection and donor population, spreading of risks, and	150
ecosystem engineering effects	179
Reports Sources of sedimentary PAHs in tropical Asian waters: Differentiation between pyrogenic and petrogenic	
sources by alkyl homolog abundancePrediction of Salmonella in seawater by total and faecal	189
coliforms and Enterococci	201 206
Evaluation of pollutant build-up and wash-off from	200
selected land uses at the Port of Brisbane, Australia Chronology of mercury enrichment factors in reef corals	213
from western Venezuela	222
small marina on the Swedish west coast	230
Application of HF radar currents to oil spill modelling Re-evaluating the use of beached bird oiling rates to assess	238
long-term trends in chronic oil pollution	249
biodegradation of polyaromatic hydrocarbons  The Gladstone (Australia) oil spill – Impacts on intertidal	256
areas: Baseline and six months post-spill	263
1051 in natural seawaterAn evaluation of the health status of the Lavaca Bay, Texas ecosystem using <i>Crassostrea virginica</i> as the sentinel	272
species	280
Note Leatherback turtles: The menace of plastic	287

(Contents continued on next page)