

coral triangle initiative, coral

hemisphere, we shall perceive

lands, forming a connected group

connexion with either of them.

of the great tropical oceans, this

almost any other part of the globe,

unknown.” So begins Alfred Russel

Wallace, published in 1869 (Wallace, 1869) and

biogeography.

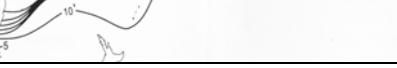
interpretation of modern faunal

in 1853 he read a paper to the Royal

society on a map starting at the deep strait

s well as other authors of the time
, notably by the American
Forbes (1856) as well as Charles
tions on the distribution of some
ge, 1981), but it was not until the
historic compendium in 1935 that
own right.

e proposed centres of marine
n/Philippines Archipelago. Some
rs from coral and reef fish
mes: Wallacea, East Indies
y Triangle, Indo-Australian



Great Barrier Reef of Australia has
Archipelago.

distributions were first compiled at
ed spatial database. This
es archipelago, but not the Great
1995), a pattern now well-

Asia Pacific Economic Cooperation
initiative (CTI) as a mechanism to
biodiversity. The Government of
establishment of the CTI following a
UN Framework Convention on
ggest conservation initiatives ever

was established by the spatial
ies maps of Veron (2000), see
es maps of zooxanthellate coral
ed to compare geographic regions

Database are each divided into
(Spalding et al. 2007). These
species in each ecoregion
ions of the database used to
(2) species complements derived
data (Table 1). The database is
by the Australian Institute of
completed in 2010.

Sixteen of these have >500 species

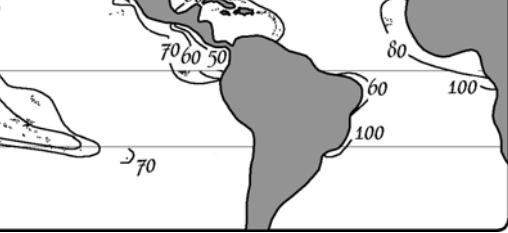
ounting to 76% of the world's total
es in the Bird's Head Peninsula of
s there have up to 280 species ha⁻¹,
s richness of the entire Atlantic
Head, The Raja Ampat Islands
h 553 species (Turak and Souhoka,

ye' and the Birds Head diversity
T species are found in at least 12 of
from neighbouring ecoregions to
are found in one or more adjacent
aysia, Thailand and Vietnam)
nia and Fiji although all exhibit

World Summit on Sustainable
2003 Convention of Biological
Organisations and communities to
representative networks of MPAs
on. However, as of 2006, only
MPAs (Mora et al. 2006).

work of MPAs and to help
is distributed, especially to avoid a
in spending (Halpern et al. 2006).

marine ecoregions of the world.
g benthic and shelf pelagic (neritic)
es not provide a detailed analysis



reef coral genera (in millions of
era of the ancient Tethys Sea and also
y the 30 million year contour indicate
1995).

were to ocean circulation patterns

impacts of sea-level changes

two million years the shorelines of

6. All reefs (which cannot be

deep water remained in close

proximity. The CT is seen to be
ats and adjacent deep (>150 m) ocean

towards the region, entrained in
Current (Jokiel and Martinelli,

t progressively increasing distance,
ward to mainland Japan, dispersed
ustralian coast, dispersed by the
southward along the east
(Wells, 1955; Veron, 1995). This
central Indo-Pacific simply because
ss away from the region.

in biogeographic patterns and the

of endemism or (b) the overlap in
st category contributes only 2.5%
is therefore due to the overlap of
ific and westwards into the Indian
fish (Allen, 2006) and other taxa
ch have a lesser capacity for long

near the thermal cap of 31°C
o it, is commonly maintained for
established maxim of biogeography
r taxa increases with increasing
increasing latitude is correlated
s well established for marine life

diverge in time forming two or
olated after the barriers are
ndant species. This process on a
of origin. There is no requirement
nce to many genetic processes,
increase in species numbers and
of long distance dispersal.
mits rather than artificially-defined
the theory of reticulate evolution.

mechanism of evolutionary
are both genetic barriers (as in
ies' fuse as well as divide in time
and (d) that evolution is driven by
gical mechanisms (competition for
does not deny the existence of
genetic mixing to weaken

Conservancy) and Tim Simmonds
e, Dr G.R. Allen and Dr M.G.

okani P, Atu W, Ramohia P,
ment. The Nature Conservancy

lendemism for Indo-Pacific coral
Ecosystems 18: 541-556

f Zoogeography. Bartholomew,

Johnston AK The Physical atlas of

Edinburgh

and writings of Alfred Russel

d) Wallace's Line and plate

Pacific and Indian Oceans in the

shrimps (Crustacea: Decapoda):

iversity: Earth's Living Resources in

CA

crasses and mangroves: an

01-10

m on coral reefs: archipelagic

25

3) Patterns and processes in reef

y in mangrove floras. In: Ricklefs

unities, historical and geographical

the Indian Ocean. In: Stoddart DR,

reefs. Symp. Zool. Soc. London

coral reefs in the Raja Ampat
in a rapid ecological assessment of
October 30 – November 22, 2002.
Protected Areas, Sanur, Bali

Mar. Sci. Townsville

t. Mar. Sci. Townsville. CD-ROM.

c corals: species of the central

nogr. Ser. 9

raphy and Evolution of the

ngs Ninth International Coral Reef

49
43*
1
0
0
17
0
2
3
0
0
0
12
36
15
0

17

0

18

22

34*

4

46*

22

22

12

0

1

22

10

0

8

3

40

8

51*

53*

22

28

19

6

8

6

16

13

3

4

8

12

0
0
8
1
0
0
0
10
0
1
2
10
2
2
0
0

e. (2) Number of species in each
* = an average of three surveys has
ons, including those not field
studied by the authors. All relevant
ated into the database.