

MOLLUSCA EATEN BY BIRDS

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Molluscs, listed here, have been found in stomach and crop contents of birds or are known, by observation, to be eaten by birds in South Australia. Where specifically found in the crop the record is so indicated. The shell contents are usually fragmentary. Corresponding numbers against the specific names of molluscs listed are used as a key, following the specific names of the birds. The molluscs have been noted from various sources over many years. Among those who provided material are the late Sir Joseph Verco, Dr. Morgan, J. Sutton, Edwin Ashby, Prof. T. H. Johnson and A. M. Lea.

Lea and Gray (6) provided an extensive list of general stomach contents, but not specific identifications were mentioned in connection with the shells.

Lea also published a series of papers (1) (2) (4) (6), mentioning insects, seeds, etc., from birds.

A few records of molluscs attached to birds' feathers, legs and feet are also noted.

Most of the molluscs mentioned here are figured and briefly described in "South Australian Shells," published by the South Australian Museum (10). Fuller information is contained in the British Science Guild books on Mollusca by the author published by the Government Printer, Adelaide.

RALLIFORMES.

Spotted Crake

Porzana fluminea

Outer Harbour. May, 1937. 4, 6, 7, 48, 81, 96. Seeds of Salt Bush.

Marsh Crake

Porzana pusilla

Burnside, 1935. 6, 7, 97. Seeds.

Dusky Moorhen

Gallinula tenebrosa

Tailem Bend, December, 1940. 3, 6, 9. Sand, mud, seeds. Among feathers, 97.

Eastern Swamphen
Porphyrio melanotus

Tailem Bend, February, 1941. 4, 9, 10, 11. Seeds, insects, vegetable matter.

PROCELLARIFORMES.

White-faced Storm-petrel

Pelagodroma marina

Kangaroo Island, October, 1937. 29, 48. Worm-like objects. (Lea and Gray).

PELECANIFORMES.

Black Cormorant

Phalacrocorax carbo

Port River, 1934. 27, 29, 49, 82.

Pied Cormorant

Phalacrocorax varius

Port River, 1936. 27, 29, 41.

Australian Pelican

Pelecanus conspicillatus

Coorong—Tailem Bend, etc. 1, 2, 5, 8, 10, 16. Attached to feathers, 2, 3, 4, 6.

LARIFORMES.

Crested Tern

Sterna bergii

Encounter Bay, December, 1950. 91.

Silver Gull

Larus novaehollandiae

Semaphore. 23, 24, 26, 27, 31, 32, 33, 34, 36, 37, 38, 39. Silver Gull paddles the sand and picks up the small cockle 29 as it emerges from the sand. The paddling action appears to be a searching or feeling action. Cotton (9), p. 168.

Pacific Gull

Larus pacificus

Reevesby Island. December, 1939. 62. Picks up large Turban Shells and drops them on large flat-topped rock, then swoops down to eat the animal. Cotton (7), p. 169. Remains of the echinoderms *Phyllacanthus kimberi* Cotton, *Adelcidaris tubaria* Lamarck and *Heliocidaris armigera* Agassiz are also found on the rocks and taken as food. Robe, February, 1933. 59, 60, 61, also noted as food of the Pacific Gull.

CHARADRIIFORMES.

Turnstone

Arenaria interpres

Yorke Peninsula, June, 1936. Marino, 1939. 29, 32, 39, 50, 67, 80, 82, 83, 84, 85, 90.

Sooty Oyster-Catcher

Haematopus unicolor

Yorke Peninsula, December 1937, etc. 23, fragments juvenile oyster shell, 24, 39, 49, 50, 52, 54, 70, 71, 73.

Spur-winged Plover

Lobibyx novaehollandiae

Larval trematode *Echinostoma ignavum*

passés through 10, 13, 16. Tailem Bend.
Grey Plover

Squatarola squatarola
Robe, 1933. 27, 48, 52, 70, 96. Insects
and larvae, worms.

Double-Banded Dotterel
Charadrius bicinctus
Yorke Peninsula, May. 90. Beetles and
sand, grit.

Banded Stilt
Cladorhynchus leucocephalus
Tailem Bend, February 1948. 3. Insects,
sand, grit.

Curlew-Sandpiper
Erolia acuminata
Kangaroo Island, 1930. Wallaroo, 1952.
Crop. 22, 24, 46, 58, 87, 96. Seeds, aquatic
insects, worms.

ARDEIFORMES.

White-faced Heron
Ardea novaehollandiae
Tailem Bend. 2, 3, 4, 5, 6, 8, 10, 11, 12,
13, 14, 16, 19. Attached to leg and foot
web, 21.

ANATIFORMES.

Black Swan
Cygnus atratus
Larval trematode *Echinostoma revolutum*
passes through 10, 13, 16. Tailem Bend.

Mountain Duck
Casarca tadornoides
Larval trematode *Echinostoma revolutum*
passes through 10, 13, 16. Tailem Bend.

ANATIFORMES.

Grey (Black) Duck
Anas superciliosa
Tailem Bend. 1, 2, 10. Duck shot in
flight had large specimen of 1 attached to
toe and web. Cotton (5), p. 113. Attached
to feathers, 2, 3, 4, 6.

Grey Teal
Anas gibberifrons
Tailem Bend, Murray Bridge, Mannum,
February 1952. 1, 2, 3, 4, 5. Insects, grit.
One male Coorong, Woods Well, had four
small specimens of 2 gripped on web of foot.
(V. Wood.)

Blue-winged Shoveller
Anas rhynchotis
Tailem Bend, 1950. 2, 3, 4, 6.

Pink-eared Duck
Malacorhynchus membranaceus
Tailem Bend. 3, 4, 6, 9, 11. Small female

adult, Goolwa, October 9, 1958 (V. Wood)
had mud, shell and sand grit in the stomach.

Blue-billed Duck
Oxyura australis
Tailem Bend, March 1949. 3, 4, 6, 7, 9,
11, 12, 13, 14. Insects, fish-bone.

Musk Duck
Biziura lobata
Tailem Bend. 1, 2, 3, 4, 5, 6, 8, 10, 11,
14, 16, 19, 21. Attached to feathers, 2, 3,
4, 6, 10 (young), 13, 16, 19, 21.

PASSERIFORMES.

Grey Shrike-thrush
Colluricincla harmonica
Tailem Bend, 1951. 1, 2, 3, 4, 5, 6, 11,
19. Insects, spider. Port Lincoln. 15,
17, 18.

Crested Bellbird
Oreoica guttaralis
Melrose. 97. Insects.

White-plumed Honeyeater
Meliphaga penicillata
Belair, 1937. 97. Insects, shell grit.

Spotted Scrub-wren
Sericornis maculatus
Kangaroo Island, 1930. Crop. 30, 87,
88, 89, 96. Insects (fragments). Crustacea
(fragments). Port Lincoln. 15, 17, 18,
26 (fragments).

Redthroat
Pyrholaemus brunneus
Tailem Bend, 1937. 3, 4, 6, 9, 19, 21.
Insects.

Little Grass-bird
Megalurus gramineus
Robe, 1930. 97, 98 (fragments). Port
Pirie. 97.

Horsfield Bushlark
Mirafra javanica
Encounter Bay, 1930. 48, 81.

INTRODUCED.

Blackbird
Turdus merula
99, 100, 101.

LIST OF MOLLUSCS EATEN
BY BIRDS

FRESHWATER MOLLUSCA.

PELECYPODA

1. *Vesunio ambiguus* Philippi 1847.
2. *Corbiculina angasi* Prime 1864.
3. *Sphaerinova bursa* Cotton 1953.
4. *Australpera cara* Cotton 1953.

GASTROPODA

5. *Notopala hanleyi* Frauenfeld 1864.
6. *Rivissessor pattisoni* Cotton 1942.
7. *Tatea rufilabris* A. Adams 1862.
8. *Plotiopsis tetrica* Conrad 1850.
9. *Coxiella confusa* Smith 1898.
10. *Peplimnea lessoni* Deshayes 1830.
11. *Simlimnea subaquatilis* Tate 1880.
12. *Lenameria subundata* Sowerby 1873.
13. *Lenameria tenuistriata* Sowerby 1873.
14. *Lenameria subacuta* Cotton and Beasley 1941.
15. *Lenameria lincolnensis* Clessin 1886.
16. *Glyptamoda aliciae* Reeve 1862.
17. *Isidorella subinflata* Sowerby 1874.
18. *Isidorella rubida* Tate 1882.
19. *Pygmanisus parvus* Cotton 1943.
20. *Segnitila victoriae* Smith 1882.
21. *Pettancyclus australicus* Tate 1880.
43. *Notohaliotis conicopora* Peron 1816.
44. *Marinauris roei* Gray 1826.
45. *Neohaliotis scalaris* Leach 1814.
46. *Neohaliotis emmae* Reeve 1846.
47. *Scutus anatinus* Donovan 1820.
48. *Bankivia fasciata* Menke 1830.
49. *Austrocochlea zebra* Menke 1829.
50. *Fractarmilla rudis* Gray 1826.
51. *Fractarmilla concamerata* Wood 1828.
52. *Austrocochlea torri* C. and G. 1934.
53. *Chlorodiloma adelaidae* Philippi 1849.
54. *Chlorodiloma odontis* Wood 1828.
55. *Granata imbricata* Lamarck 1816.
56. *Stomatella auricula* Lamarck 1818.
57. *Austroliotia australis* Kiener 1839.
58. *Lissotesta contabulata* Tate 1899.
59. *Subninella undulata* Solander 1786.
60. *Ninella torquata* Gmelin 1788.
61. *Euninella gruneri* Philippi 1846.
62. *Dinassovica jordani* Kiener 1839.
63. *Bellastraea squamifera* Koch 1844.
64. *Micrastraea aurea* Jonas 1844.
65. *Micrastraea rutidoloma* Tate 1893.
66. *Phasianella australis* Gmelin 1788.
67. *Mimelenchus ventricosa* Swainson 1822.
68. *Orthomesus angasi* Crosse 1864.
69. *Pellax johnstoni* Cotton 1945.
70. *Melanerita melanotragus* Smith 1884.
71. *Patellanax squamifera* Reeve 1885.
72. *Patellanax peroni* Blainville 1825.
73. *Cellana artel* Iredale 1924.
74. *Cellana rubraurantiaca* Blainville 1825.
75. *Patelloida alticostata* Angas 1865.
76. *Collisellina latistrigata* Angas 1865.
77. *Notoacmea septiformis* Quoy and Gaimard 1834.
78. *Notoacmea scabrilirata* Angas 1865.
79. *Melarhaphe unifasciata* Grey 1826.
80. *Bembicium melanostoma* Gmelin 1791.
81. *Hydrococcus graniformis* Thiele 1928.
82. *Notosetia muratensis* Cotton 1944.
83. *Laseronia vincentiana* Cotton 1952.
84. *Assimineia tasmanica* Tenison Woods 1876.
85. *Truncatella vincentiana* Cotton 1942.
86. *Batillariella estuarina* Tate 1893.
87. *Diala lauta* A. Adams 1862.
88. *Semibittium granarium* Kiener 1842.
89. *Eubittium lawleyanum* Crosse 1863.
90. *Conuber conicum* Lamarck 1822.
91. *Ectosinum zonale* Quoy and Gaimard 1833.
92. *Zemitrella lincolnensis* Reeve 1859.
93. *Parcanassa pauperata* Lamarck 1822.
94. *Haloginella vincentiana* Cotton 1944.
95. *Plecotrema ciliata* Tate 1878.
96. *Salinator fragilis* Lamarck 1822.

MARINE MOLLUSCA:

PELECYPODA.

22. *Austronucula micans* Angas 1878.
23. *Ostrea sinuata* Lamarck 1819.
24. *Brachyodontes erosus* Lamarck 1819.
25. *Lepton trigonale* Tate 1879.
26. *Diaphoromactra versicolor* Tate 1886.
27. *Anapella adelaidae* Angas 1865.
28. *Astromactra rufescens* Lamarck 1818.
29. *Amphidesma angusta* Reeve 1854.
30. *Katelysia scalarina* Lamarck 1818.
31. *Tellina albinella* Lamarck 1818.

CEPHALOPODA

32. *Mesembrisepia novaehollandiae* Hoyle 1909.
33. *Amplisepia apama* Gray 1849.
Cuttlebones and flesh of Cuttlefish eaten by various sea-birds.
34. *Sepioteuthis australis* Quoy and Gaimard 1832.
Flesh of Squids eaten by various sea-birds.
35. *Octopus flindersi* Cotton 1932.
36. *Octopus pallidus* Hoyle 1885.
37. *Octopus australis* Hoyle 1885.
Flesh of Octopus eaten by various sea-birds.
38. *Argonauta nodosa* Solander 1786.

CREPIPODA

39. *Poneroplax albida* Blainville 1825.

GASTROPODA

40. *Schismotis laevigata* Donovan 1808.
41. *Exohaliotis cyclobates* Peron 1816.
42. *Notohaliotis improbula* Iredale 1924.

LAND MOLLUSCA.

NATIVE

97. *Themapupa adelaidae* Angas 1864.
 98. *Austrosuccinea australis* Ferrusac 1821.

INTRODUCED

99. *Limax maximus* Linné 1758. Slug.
 100. *Helix aspersa* Müller 1774. Common Garden Snail.
 101. *Helicella neglecta* Draparnaud 1805. White Heath Snail.

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