

A Year at the Poor Knights

Wade Doak draws on records back to 1968 to provide a monthly picture of changing events in the Poor Knights year, from the spawnings of fish and nudibranchs, to the arrival times of giant salps, paper nautilus, stingrays, grouper and other visitors. Detailed accounts of major episodes along with 'what's happening this month' timetables.

A YEAR AT THE KNIGHTS - WADE DOAK

CONTENTS

- 1 SPRING NIGHTS page 2**
- 2 POOR KNIGHTS SPRING TIMETABLE page 6**
- 3 COMPLETING THE CYCLE- A POOR KNIGHTS YEAR page 8**
- 4 POOR KNIGHTS SUMMER-AUTUMN TIMETABLE page 13**
- 5 DAY SHIFT AND NIGHT SHIFT AT THE KNIGHTS page 15**
- 6 REEF FISH ECOLOGY THROUGH TIME AND SPACE page 16**

Spring Knights

Springtime in the southern ocean sees a sequence of events unfold triggered by lengthening days, rising water temperature and the upwelling of nutrient-rich, deep ocean water as winter cooled surface water sinks and displaces warmer layers beneath.

The year's midnight in Northland waters is at the end of August, when sea temperatures are at their lowest. But for many sea creatures it is from the shortest day in late June that subtle environmental changes activate stages in their biology manifested in special behaviours.

At the Poor Knights Islands these manifestations are most dramatic and diverse because of its location near the cons shelf edge, adjacent to great depths leading out to the Kermadecs Trench, and in the path of warm subtropical currents - along with intermittent pulses or gyres from as far as the Coral Sea.

In defining springtime in the ocean, we should take into allowance the complexity of all these physical influences, including the pendulum of El Nino and La Nina effects and consider the dynamics of a period extending from August through to December.

Prior to this period the conveyor belt from the north is bearing towards the Poor Knights larval fishes like cocooned inner space travellers, from summer spawnings on coral reefs at Lord Howe island, Kermadecs and beyond. When the translucent voyagers reach these offshore islands, genetic switches will operate to cause them to settle out, develop pigmentation and begin their reef fish lives.

In July and August the winter sea is often very clear and crisp. Everything seems to sparkle in the low light and among the reef fish, love is on the fin. Increasing daylight hours trigger certain

[extract ends]