

Exploring the Night Sky with Binoculars

On a clear starry night, the jewelled beauty and unimaginable immensity of our universe is awe-inspiring. Stargazing with binoculars is rewarding and may begin a lifelong hobby! Patrick Moore has painstakingly researched *Exploring the Night Sky with Binoculars* to describe how to use binoculars for astronomical observation. He explains basic astronomy and the selection of binoculars, then discusses the stars, clusters, nebulæ and galaxies that await the observer. The sky seen from the northern and southern hemispheres is charted season by season, with detailed maps of all the constellations. The reader can also observe the Sun, Moon, planets, comets and meteors. With many beautiful illustrations, this handbook will be helpful and encouraging to casual observers and those cultivating a more serious interest. The enjoyment of amateur astronomy is now available to everybody.

Patrick Moore, host of the monthly television show *The Sky at Night* since 1957, is a distinguished and prolific author of more than 70 astronomy books. He has served as President of the British Astronomical Association. His contributions to the public understanding of astronomy have been marked by special awards from the Royal Astronomical Society, the British Astronomical Association, the Astronomical Society of the Pacific and the Italian Astronomical Society. Patrick Moore is a great enthusiast, always encouraging anyone with an interest in the night sky to get out and observe.



Exploring the NIGHT SKY with Binoculars

FOURTH EDITION

Patrick Moore





> PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE The Pitt Building, Trumpington Street, Cambridge, United Kingdom

CAMBRIDGE UNIVERSITY PRESS

The Edinburgh Building, Cambridge CB2 2RU, UK 40 West 20th Street, New York, NY 10011-4211, USA 10 Stamford Road, Oakleigh, VIC 3166, Australia Ruiz de Alarcón 13, 28014 Madrid, Spain Dock House, The Waterfront, Cape Town 8001, South Africa

http://www.cambridge.org

© Cambridge University Press 1986, 1996

© Patrick Moore 2000

This book is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 1986 First paperback edition 1988 Reprinted 1989, 1990, 1993 Third edition 1996 Reprinted 1997, 1998, 1999 Fourth edition 2000

Printed in the United Kingdom at the University Press, Cambridge

Typeface Palatino 10/12 pt System QuarkXPress® [DS]

A catalogue record for this book is available from the British Library

Library of Congress Cataloguing in Publication data

Moore, Patrick.

Exploring the night sky with binoculars/Patrick Moore.- 4th ed.

cm. ISBN 0 521 79053 0 - ISBN 0 521 79390 4 (pbk)

1. Astronomy-Observers' manuals. I Title.

OB63.M63 2000

520'.22'3-dc21 00-028913

ISBN 0 521 79053 0 hardback ISBN 0521793904 paperback



Contents

Preface to the Fourth Edition		vi
1	The Night Sky	1
2	Binoculars of Many Kinds	8
3	Among the Stars	15
4	Double Stars and Variable Stars	20
5	Clusters, Nebulæ and Galaxies	31
6	Stars of the Seasons	35
7	The Constellations	49
8	The Sun and its Eclipses	148
9	Lunar Landscapes	151
10	The Planets	175
11	Comets and Shooting-Stars	181
12	Summing-Up	187
	Appendices	
	1 Choosing a Telescope	189
	2 Planetary Data	192
	3 The Planets, 2000–2010	193
	4 Eclipses, 2000–2010	195
	5 The Brightest Stars	197
	6 A Selection of Stellar Objects	199
Bibliography		205
A Note on Metrication		206
Index		207



Preface to the Fourth Edition

A few further amendments have been made in order to bring the text fully up to date.

I am very grateful to Dr Alice Houston for her help.

Selsey, May 2000

PATRICK MOORE