

Contents

Foreword	vii
1 A Larger Solar System	1
Pea	3
Conjunction	4
Fuzzy Star	7
2 Eleven Planets	11
Quest	13
Point of Light	14
Fragments	16
3 The Writing Desk Planet	19
Orbital Deviations	21
Mathematical Genius	21
Not on the Map	23
Loss of Face	25
Search	27
4 ‘I’ve Found Your Planet X’	29
Another Planet?	30
Lowell’s Hunt	32
New Searches for Planet X	33
Tombaugh’s Dedication	36
5 The Kid Planet	39
The Pluto Breakfast	41
Cartoon Figure	43
Scrapbooks	45
6 A Strange and Wonderful Week	47
Missed Opportunity	48

Omen	50
Charon	53
7 Fortunate Circumstances	55
Atmosphere	56
Mr Pluto	58
Pure Luck	59
Odd Man Out	61
8 Nix and Hydra	65
Hubble Photos	66
Double Discovery	68
Confirmation	69
Names	71
Quibbling	72
9 The Unauthorized Planet	75
Painstaking Work	76
Rhadamanthus	79
Centaurs	80
Forbidden Zone	81
10 Uranus: Problem Solved?	85
Speculation	86
Humphrey	87
Exit Planet X	88
A Pinch of Salt	90
11 Mysterious Forces	93
Explorers	94
Precision Measurements	96
The Pioneer Anomaly	97
Planets Aplenty	98
12 The Hunt for the Death Star	101
Dinosaurs	102
Nemesis	104
Questions	106
A Remote Planet X	107
13 The Secret Planet	111
A Ready Pen	112
Conspiracy	113
Zetas	114
Mayas	116

14	Vulcanoids and Earth-Grazers	119
	Vulcan	120
	Astronomy by Fighter Jet	121
	Earth-Grazers	123
	Apophis	124
	Danger of Impact	125
15	The Kuiper Connection	127
	Beyond Neptune	129
	The Kuiper Belt	130
	Enormous Legacy	132
16	Comet Puzzles	135
	The Oort Cloud	137
	Roving Comets	138
	Wriggling Dots	140
	Simulations	141
17	Smiley	145
	Uncertainties	146
	White Mountain	149
	Lucky Strike	151
18	Family Portraits	155
	Plutinos	156
	Speed Blinking	158
	Mini-Feud	161
19	The Migrating Planet	165
	Odyssey	166
	Migration	169
	Resonances	171
20	Icy Treasure Troves	175
	Pitfalls	177
	Pholus	179
	Variety	181
21	The Big Five	183
	Large Field of View	185
	Quaoar	187
	QUEST	189
	Sedna	192

22	The Tenth Planet	195
	Xena	197
	Tenth Planet	199
	Lila	201
23	The Spanish Invasion	205
	Google	208
	Typing Error	210
	IP Addresses	212
	Secrecy	213
24	Pas de deux	217
	Big Whack	219
	Icy Duos	221
	Confirmation	222
25	Model from Nice	225
	Strange Pair	226
	Migration and Resonance	228
	Bombardment	231
26	Planet Under Siege	235
	Demotion	236
	Pluto Soap Opera	238
	Wanted: A Definition	241
27	Planetary Elections	245
	Dwarf Planets	247
	Rebellion	249
	Foul Play	250
28	The Continuing Story	255
	Eris and Dysnomia	256
	Buffy	258
	A Hundred Thousand Ice Dwarfs	260
29	A Thousand Planets	265
	Indirect Clues	266
	Origins	269
	Mysteries	271
30	New Horizons	275
	Pluto Fast Flyby	276
	A Fresh Start	278
	Souvenirs from Earth	279

Contents	xiii
Table: Details of a Number of Large Ice Dwarfs	283
Chronology	285
Glossary of Terms	291
Bibliography	295
Index	297

The Hunt for Planet X

New Worlds and the Fate of Pluto

Schilling, G.

2009, XIII, 303 p., Hardcover

ISBN: 978-0-387-77804-4