

HUBBLE HUNTS FOR INTERMEDIATE-SIZED BLACK HOLE



1
00:00:04,370 --> 00:00:02,389
it's estimated that our galaxy is

2
00:00:07,550 --> 00:00:04,380
littered with a hundred million small

3
00:00:09,950 --> 00:00:07,560
black holes created from exploded Stars

4
00:00:12,530 --> 00:00:09,960
while the universe at large is flooded

5
00:00:14,810 --> 00:00:12,540
with supermassive black holes weighing

6
00:00:16,970 --> 00:00:14,820
millions or billions of times our Sun's

7
00:00:19,970 --> 00:00:16,980
mass and found in the centers of

8
00:00:22,670 --> 00:00:19,980
galaxies a long-sought missing link

9
00:00:25,490 --> 00:00:22,680
between the two is an intermediate Mass

10
00:00:27,970 --> 00:00:25,500
black hole weighing in at hundreds to

11
00:00:30,769 --> 00:00:27,980
thousands of solar masses

12
00:00:33,590 --> 00:00:30,779
astronomers using NASA's Hubble Space

13
00:00:35,690 --> 00:00:33,600

Telescope have possibly detected one of

14

00:00:37,910 --> 00:00:35,700

these elusive intermediate Mass black

15

00:00:41,330 --> 00:00:37,920

holes in the core of the globular star

16

00:00:43,970 --> 00:00:41,340

cluster Messier 4 located 6 000 light

17

00:00:46,490 --> 00:00:43,980

years away from Earth they calculated

18

00:00:48,889 --> 00:00:46,500

the suspected black holes mass by

19

00:00:51,709 --> 00:00:48,899

studying the motion of stars caught in

20

00:00:53,450 --> 00:00:51,719

its gravitational field using 12 and a

21

00:00:56,630 --> 00:00:53,460

half years worth of Messier 4

22

00:00:58,910 --> 00:00:56,640

observations from Hubble the researchers

23

00:01:02,209 --> 00:00:58,920

estimate that the black hole could be as

24

00:01:04,070 --> 00:01:02,219

much as 800 times the mass of our sun

25

00:01:06,910 --> 00:01:04,080

thanks to Hubble's High Precision

26

00:01:09,710 --> 00:01:06,920

observations over a long period of time

27

00:01:11,990 --> 00:01:09,720

scientists can search the skies to help

28

00:01:14,929 --> 00:01:12,000

us uncover the mysteries of this Missing