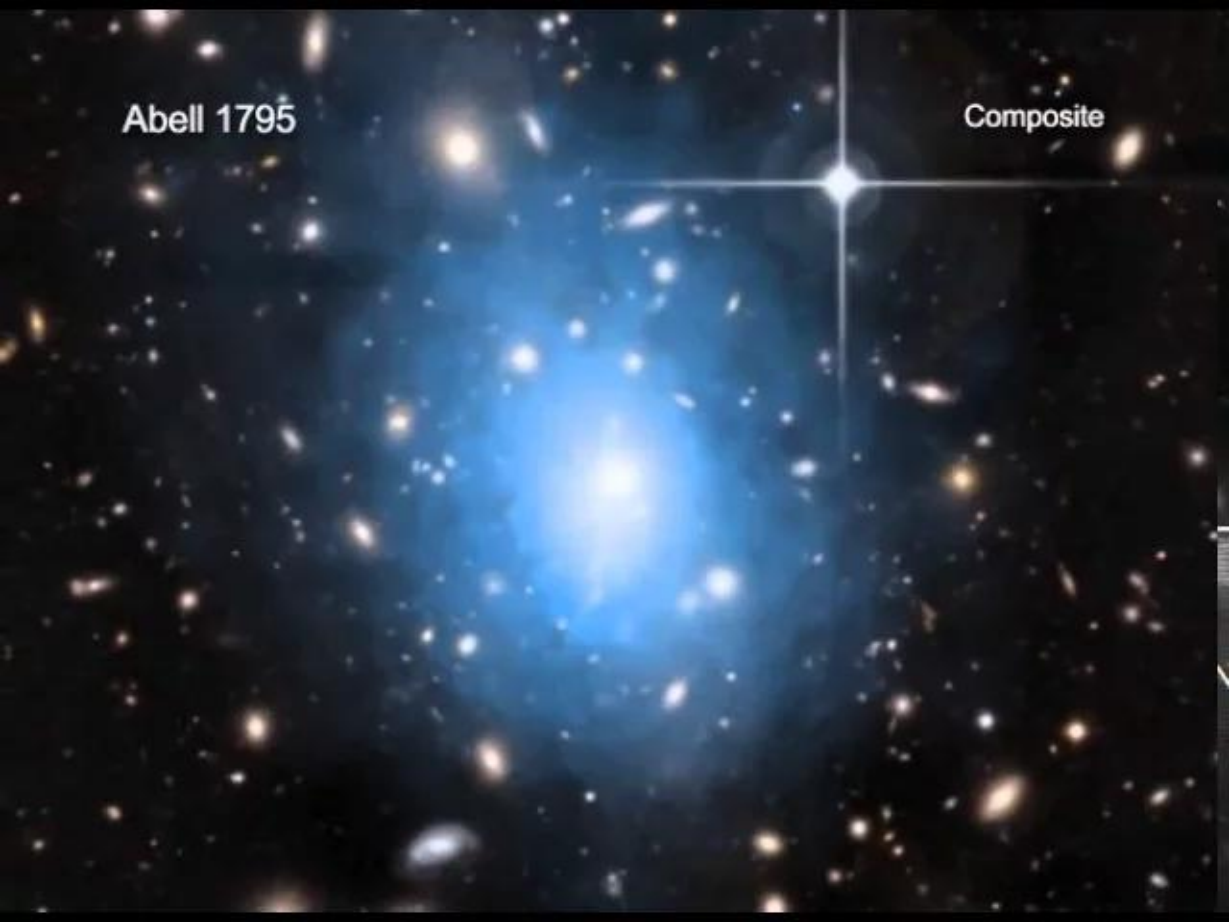


Abell 1795

Composite



1
00:00:05,450 --> 00:00:02,960
a star that wanders too close to a

2
00:00:07,670 --> 00:00:05,460
supermassive black hole is doomed as it

3
00:00:10,280 --> 00:00:07,680
should be ripped apart by extreme tidal

4
00:00:11,839 --> 00:00:10,290
forces the debris from the star is

5
00:00:14,089 --> 00:00:11,849
expected to fall toward the black hole

6
00:00:17,810 --> 00:00:14,099
getting hotter and producing intense

7
00:00:21,560 --> 00:00:17,820
x-rays the x-rays should then fade as

8
00:00:24,019 --> 00:00:21,570
the hot gas spirals inward using Chandra

9
00:00:27,650 --> 00:00:24,029
this behavior may have been spotted for

10
00:00:29,870 --> 00:00:27,660
the first time in a dwarf galaxy bright

11
00:00:33,139 --> 00:00:29,880
x-rays from the location of this small

12
00:00:36,080 --> 00:00:33,149
galaxy were seen in 1999 until they

13
00:00:40,040 --> 00:00:36,090

faded and eventually disappeared in 2005

14

00:00:42,619 --> 00:00:40,050

in the past few years Chandra and other

15

00:00:44,630 --> 00:00:42,629

astronomical satellites have identified

16

00:00:47,360 --> 00:00:44,640

several suspected cases of a

17

00:00:50,060 --> 00:00:47,370

supermassive black hole ripping apart a

18

00:00:52,549 --> 00:00:50,070

nearby star this newly discovered

19

00:00:54,950 --> 00:00:52,559

episode is different because it has been

20

00:00:58,220 --> 00:00:54,960

associated with a much smaller galaxy

21

00:01:00,470 --> 00:00:58,230

than these other cases the black hole

22

00:01:02,660 --> 00:01:00,480

responsible for the destruction may be

23

00:01:05,570 --> 00:01:02,670

only a few hundred thousand times as

24

00:01:07,250 --> 00:01:05,580

massive as the Sun making it 10 times

25

00:01:11,510 --> 00:01:07,260

less massive than the galaxy's

26

00:01:13,190 --> 00:01:11,520

supermassive black hole astronomers

27

00:01:15,649 --> 00:01:13,200

believe that black holes of this size

28

00:01:17,450 --> 00:01:15,659

may be the seeds that ultimately formed