1
00:00:00,000 --> 00:00:03,260
Narrator: Each year in early spring, a remote

2
00:00:03,280 --> 00:00:05,870
desert in California serves as the backdrop

3
00:00:05,890 --> 00:00:09,200
for the public to meet NASA researchers and experience

4
00:00:09,220 --> 00:00:11,690
what it might be like to see and study

5
00:00:11,710 --> 00:00:14,290
the surface of Mars.

6
00:00:14,310 --> 00:00:17,260
Held in Death Valley National Park in California,

7
00:00:17,280 --> 00:00:20,870
the MarsFest Planetary Festival draws a wide range

8
00:00:20,890 --> 00:00:24,730
of fans from space enthusiasts to casual visitors

9
00:00:24,750 --> 00:00:28,130
over the annual 3-day event.

10
00:00:28,150 --> 00:00:29,940
The goal of the festival is to share with the

11
00:00:29,960 --> 00:00:32,610
public the importance of research done in extreme

12
00:00:32,630 --> 00:00:35,310
environments on Earth so as to better understand

13
00:00:35,330 --> 00:00:36,970

what conditions might be like

14
00:00:36,990 --> 00:00:39,810
on planets like Mars.

15
00:00:39,830 --> 00:00:42,850
Studies at these planetary analog sites are

16
00:00:42,870 --> 00:00:45,330
critical to understanding the diversity and

17
00:00:45,350 --> 00:00:47,740
resilience of life and whether it could

18
00:00:47,760 --> 00:00:51,910
potentially exist elsewhere in the galaxy.

19
00:00:51,930 --> 00:00:54,720
Famous for its extremely dry and desolate

20
00:00:54,740 --> 00:00:57,870
landscape, Death Valley has research sites within

21
00:00:57,890 --> 00:00:59,800
its boundaries that are not well known

22
00:00:59,820 --> 00:01:02,210
as analogs for other planets.

23
00:01:02,230 --> 00:01:04,220
Several of these are featured in field trips

24
00:01:04,240 --> 00:01:08,120
guided by scientists to sites such as Mars Hill,

25
00:01:08,140 --> 00:01:11,510
Badwater Basin, Ubehebe Volcanic Field and

26
00:01:11,530 --> 00:01:13,770
Mesquite Sand Dunes.

27
00:01:13,790 --> 00:01:16,250
Aaron Zent: Death Valley is an analog for

28
00:01:16,270 --> 00:01:19,480
specific kinds of places on Mars.

29
00:01:19,500 --> 00:01:23,180
Places that may have very salt-rich life or

30
00:01:23,200 --> 00:01:27,520
places where the wind is dominating the environment.

31
00:01:27,540 --> 00:01:31,660
Here, you've got a huge variety of different kinds

32
00:01:31,680 --> 00:01:32,990
of environments.

33
00:01:33,010 --> 00:01:36,160
They're all very handy to get to and so,

34
00:01:36,180 --> 00:01:38,760
we have a tremendous amount of flexibility here.

35
00:01:38,780 --> 00:01:40,930
Narrator: In addition to the field trips, MarsFest

36
00:01:40,950 --> 00:01:43,690
features presentations by researchers from NASA

37
00:01:43,710 --> 00:01:47,040
centers such as Ames, JPL and Goddard, as well as

38
00:01:47,060 --> 00:01:49,540

from the SETI Institute, the Mars Society,

39
00:01:49,560 --> 00:01:52,800
the Planetary Society and other partner organizations

40
00:01:52,820 --> 00:01:55,760
and volunteer groups.

41
00:01:55,780 --> 00:01:58,160
One of the highlights of the festival is the Mars

42
00:01:58,180 --> 00:02:01,100
presentation by acclaimed planetary scientist

43
00:02:01,120 --> 00:02:04,890
Chris McKay from NASA Ames Research Center.

44
00:02:04,910 --> 00:02:06,540
Chris McKay: We have a particular book about

45
00:02:06,560 --> 00:02:08,710
how to build life and that book is written

46
00:02:08,730 --> 00:02:10,770
in the language of DNA.

47
00:02:10,790 --> 00:02:13,360
The question that I'm asking is "Is that the only way

48
00:02:13,380 --> 00:02:15,520
to write such a book? Can you write the book of

49
00:02:15,540 --> 00:02:17,890
life in a completely different language?"

50
00:02:17,910 --> 00:02:20,770
And if we find that the answer to that is "Yes,"

51
00:02:20,790 --> 00:02:24,530
if we find on Mars alien microbes, organisms that have a

52
00:02:24,550 --> 00:02:27,450
different biochemical and genetic structure,

53
00:02:27,470 --> 00:02:29,800
we might learn something from that study that we

54
00:02:29,820 --> 00:02:32,590
would never learn by just studying the language of

55
00:02:32,610 --> 00:02:35,440
DNA that we have on life on Earth.

56
00:02:35,460 --> 00:02:37,270
Narrator: Additional displays and interactive

57
00:02:37,290 --> 00:02:40,400
exhibits are part of the MarsFest experience at

58
00:02:40,420 --> 00:02:42,180
the Death Valley Visitor's Center

59
00:02:42,200 --> 00:02:44,440
in Furnace Creek.

60
00:02:44,460 --> 00:02:47,060
The planetary analog festival is a collaborative

61
00:02:47,080 --> 00:02:50,000
effort between NASA, the National Park Service,

62
00:02:50,020 --> 00:02:52,360
and the SETI Institute.

63
00:02:52,380 --> 00:02:54,970

MarsFest is an important part of sharing with the

64
00:02:54,990 --> 00:02:57,500
public what NASA missions are doing and showing

65
00:02:57,520 --> 00:03:01,040
the connection to life on Earth.