

# Forests and Parks in Japan, and Wellness Benefits

## 1. *Shinrin-Yoku* (Forest Bathing)

In 1982 Japan's director-general of the Forestry Agency, Akiyama Tomohide, felt that Japanese needed more relief from their intense work-culture. "Japan is one of the leading 'forest-nations' of the world, so we should make us of our forests for health and recuperation. Forests have a special antimicrobial power and being in the forest makes our bodies healthy." <sup>(1)</sup> Akiyama Tomohide coined the phrase "*Shinrin-Yoku*".

The first forest-bathing conference was held in the Akasawa Natural Recreation Forest in Agematsu Town, Nagano Prefecture in the autumn of 1982.

Coordinated by the Forest Therapy Society, <sup>(2)</sup> there are now 62 official healing forests and 1,200 certified guides, with over 2.5 million people walking the healing forest trails in 2018.

Studies <sup>(3, 4, 5)</sup> support the breadth of health benefits of connecting all five senses to nature, from reduced blood pressure, lower stress, and improved cardiovascular and metabolic health to lower blood-sugar levels and improved concentration, memory, and energy. The phytoncide in cedar and cypress has been shown to have calming effects on people, as well as providing a boost to the immune system, with one study having shown a 53 percent increase in the count of the body's natural killer (NK) cells after two days in these forests.

The Global Wellness Institute *Wellness evidence* website has links to the growing academic research on the therapeutic benefits of forest bathing. Fig.1 has the titles of the research articles on the *Wellness Evidence Forest Bathing Spotlight* page:

<https://globalwellnessinstitute.org/wellnessevidence/forest-bathing/forest-bathing-spotlight/>

<b>Fig.1 Forest Bathing Spotlight: Highlighted studies, first five</b>
1) Physiological Effects of Forest Bathing: From Lowered Cortisol to Greater Parasympathetic Nerve Activity
2) Forest Bathing Increases Human Natural Killer Activity & Expression of Anti-Cancer Proteins
3) Review: Forest Environments/Bathing Lead to Significant Reduction in Blood Pressure
4) Forest Bathing and Nature Therapy: State-of-the-Art Review
5) Short Forest Bathing Experience Significantly Lowers Pulse Rate, Blood Pressure, While Reducing Anxiety
Source: Global Wellness Institute, <i>Wellness Evidence</i> , Conceptasia, October 2021

## 2. Japan's National Parks

According to data announced by the Food and Agriculture Organization (FAO) of the United Nations, the rate of forest land in Japan is 68.2%, second only to Finland. Thus, forested land in Japan covers 25,081,390 hectares.

Japan's national parks have much more than forests, including, for example, mountains, waterfalls, active volcanoes, emerald-blue oceans as well as endemic wildlife.

National parks aim to protect Japan's exceptional natural sites and preserve them for future generations. To achieve these objectives, national parks are designated, protected, and managed by the government under the National Parks Act. The latter was enacted in 1931, with in 1934 Setonaikai, Unzen and Kirishma being the first three designated national parks. In 1957, the National Parks Act underwent comprehensive revision, and the Natural Park Act was enacted, leading to the establishment of the present-day natural parks' classification consisting of national parks (currently 34, Fig.3), quasi-national parks, and prefectural natural parks. <sup>(6)</sup>

The 34 national parks have a combined size of 2,175,422 hectares. In 2019, the total number of visitors were 369.1 million (1991 416.0 million, 2011 309.0 million).

National Park land is designated regardless of private land ownership. This means most national parks include private property. In aggregate 26.0% of national park land is privately owned. Over 90% of Ise-Shima National Park is privately owned. Many people live in areas belonging to national parks, which are home to several industries including agriculture and forestry. Accordingly, the national parks are managed while considering lifestyles of residents and relevant industry conditions. <sup>(7)</sup>

This provides the opportunity for both adventure tourism and sustainable tourism, (wherein tourism businesses seek to preserve their local environment and community) to attract inbound tourists.

Data on inbound tourist visits to the 34 national parks is available here:

[https://www.env.go.jp/park/doc/data/natural/data/naturalpark\\_12.pdf](https://www.env.go.jp/park/doc/data/natural/data/naturalpark_12.pdf)

In summary, 2019 inbound tourists (total 31,882,049) made 6,669,131 visits to national parks. This implies one in five visitors to Japan visited a national park.

However, visits were highly concentrated with the top four national parks welcoming three-quarters of the total visits: Park #16 Fuji-Hakone-Izu (43%), Park #6 Shikotsu-Toya (13%), Park #28 Aso-Kuju (10%), and Park #23 Setonaikai (9%).

This implies that there is still significant potential for growth.

A good place to start planning a trip is the National Parks Discovery Center.

### 3. The National Parks Discovery Center

Located at Shinjuku Gyoen the discovery center provides Information including detailed maps for each national park, Fig.2, available in both Japanese and English.

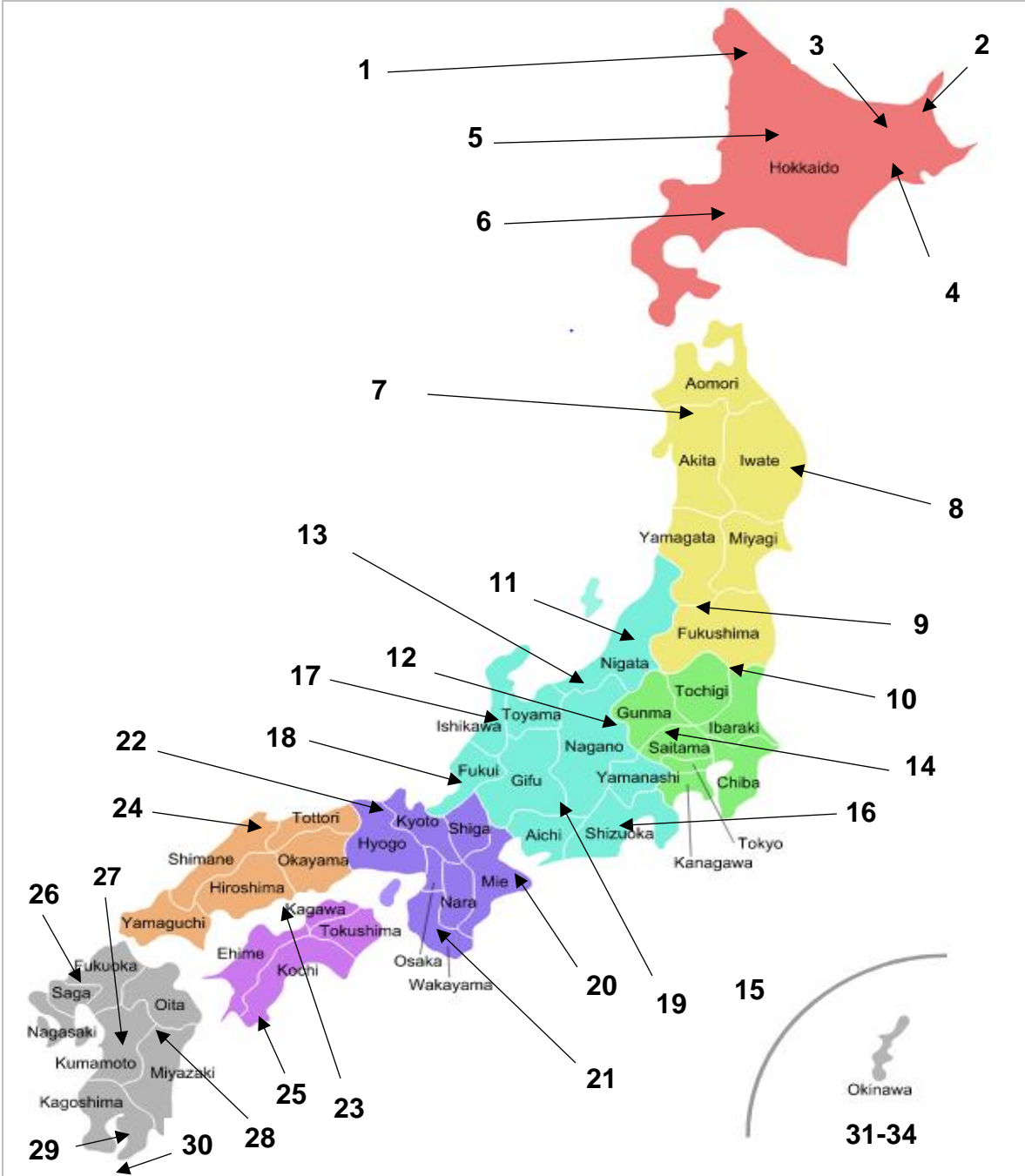
Fig.2 Information including Detailed Maps for each National Park



Source: Author's photo, Conceptasia, October 2021

<b>Fig.3 Japan's 34 National Parks</b>		
<b>National Park</b>	<b>Since</b>	<b>Area (Hectares)</b>
<b>Hokkaido Region</b>		
1. Rishiri-Rebun-Sarobetsu	1974	24,166
2. Shiretoko	1964	38,636
3. Akan-Mashu	1934	91,413
4. Kushiroshitsugen	1987	28,788
5. Daisetsuzan	1934	226,764
6. Shikotsu-Toya	1949	99,473
<b>Tohoku Region</b>		
7. Towada-Hachimantai	1936	85,534
8. Sanriku Fukko	1955	28,537
9. Bandai-Asahi	1950	186,389
<b>Kanto Region</b>		
10. Nikko	1934	114,908
11. Oze	2007	37,200
14. Chichibu-Tama-Kai	1950	126,259
15. Ogasawara	1972	6,629
16. Fuji-Hakone-Izu	1936	121,695
19. Minami Alps	1964	35,752
<b>Chubu Region</b>		
12. Joshin'etsukogen	1949	148,194
13. Myoko-Togakushi renzan	2015	39,772
17. Chubusangaku	1934	174,323
18. Hakusan	1962	49,900
20. Ise-Shima	1946	55,544
<b>Kinki Region</b>		
21. Yoshino-Kumano	1936	61,406
22. San'inkaigan	1963	8,783
23. Setonaikai	1934	66,934
<b>Chugoku &amp; Shikoku Regions</b>		
24. Daisen-Okii	1936	35,353
25. Ashizuri-Uwakai	1972	11,345
<b>Kyushu &amp; Okinawa Regions</b>		
26. Saikai	1955	24,646
27. Unzen-Amakusa	1934	28,279
28. Aso-Kuju	1934	72,678
29. Kirishima-Kinkowan	1934	36,586
30. Yakushima (Island)	2012	24,566
31. Amamigunto	2017	42,181
32. Yambaru	2016	17,311
33. Keramashoto	2014	3,520
34. Iriomote-Ishigaki	1972	21,958
Note: For comparison, Singapore's land area is 72,860 hectares		
Source: Japan's Ministry of the Environment, Conceptasia, October 2021		

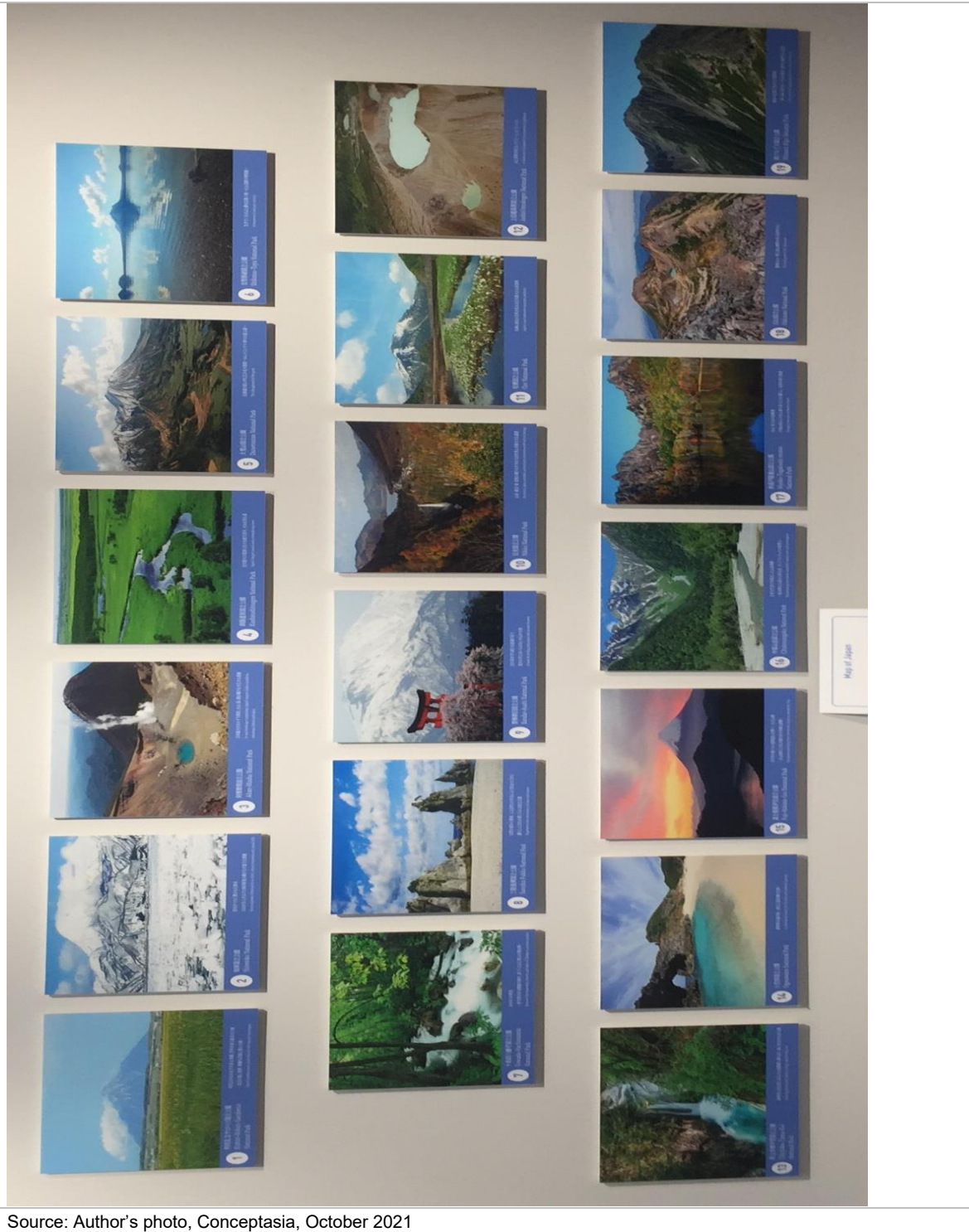
Fig.4 Japan's 34 National Parks (numbers refer to Fig.3)



Note: The top four parks for inbound visitors are 16, 6, 28 and 23

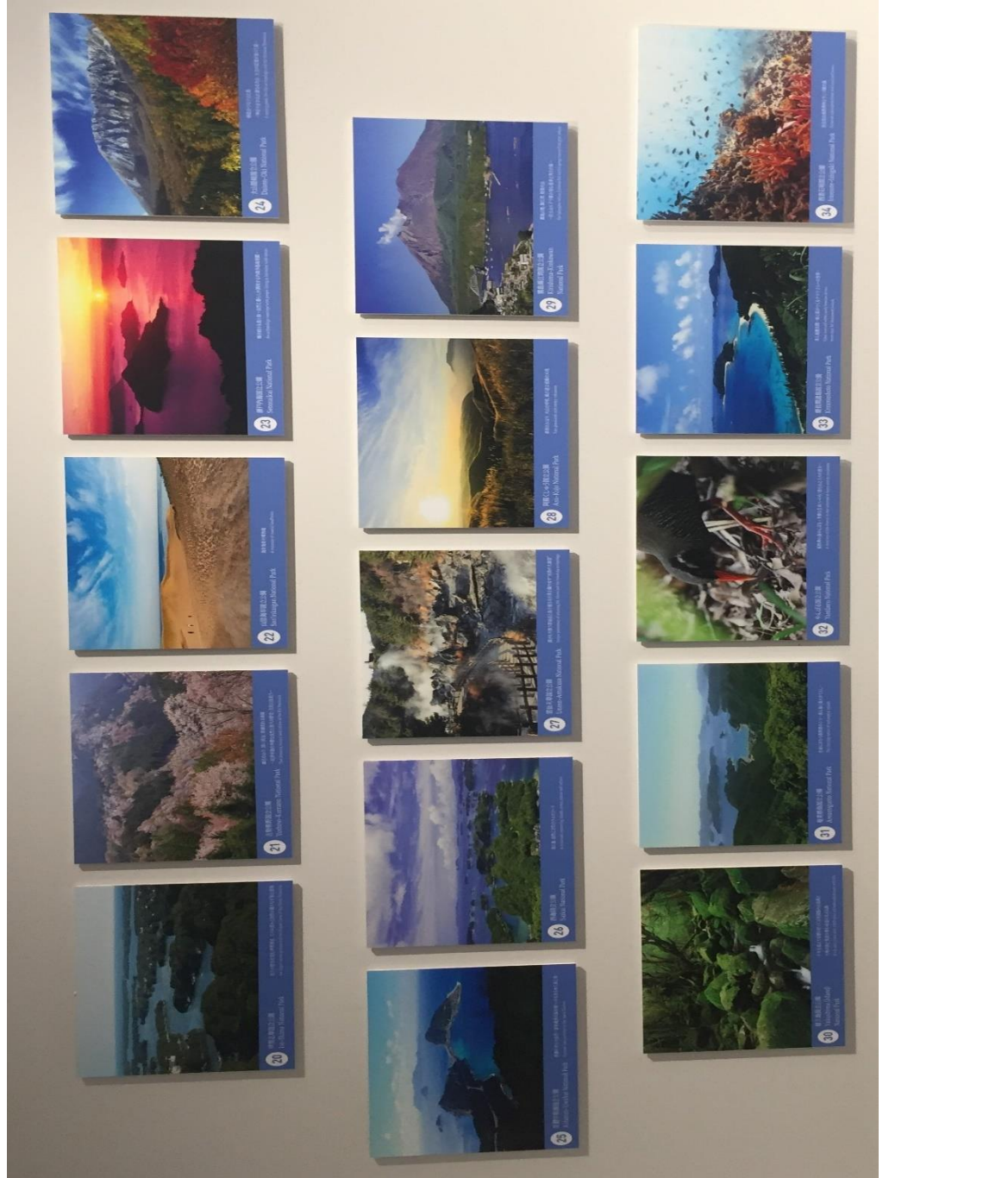
Source: National Parks of Japan, Ministry of the Environment, Conceptasia, October 2021

Fig.5 Parks: 1 through 19



Source: Author's photo, Conceptasia, October 2021

Fig.6 Parks: 20 through 34



Source: Author's photo, Conceptasia, October 2021

References:

- 1) Akiyama Tomohide as quoted in *The call of the Wild: forest Bathing and Urban Greening*, TJJ Online, the website of the Japan Journal, 4 June 2018
- 2) [https://www.fo-society.jp/therapy/cn45/index\\_en.html](https://www.fo-society.jp/therapy/cn45/index_en.html)
- 3) *Forest bathing enhances human natural killer activity and expression of anti-cancer proteins* by Li Q et al., 2007
- 4) *Effect of phytoncide from trees on human natural killer cell function*, by Li Q et al., 2009
- 5) *Effects of Forest Bathing on Cardiovascular and Metabolic Parameters in Middle-Aged Males* by Li Q et al., 2016
- 6) National Parks of Japan Promotion website: <https://www.env.go.jp/en/nature/nps/park/>
- 7) National Parks of Japan, Ministry of the Environment: <https://www.env.go.jp/en/nature/nps/park/>