



21st Japan–Korea Joint Seminar at the Tokai Region, Japan

Restoring River Environments and Sustaining River Culture through Research and Practice

河川環境再生と川文化の継承：研究と実践

October 24–25, 2025

Day 1: Seminar at the Aqua Restoration Training Center, Gifu

Day 2: Site Visit – Mid to Upper Reaches of the Nagara River Basin.

Hosted by

Ecology and Civil Engineering Nagoya (応用生態名古屋)

Center for Environmental and Societal Sustainability (CENSS), Gifu University

Contents

Seminar overview	p.1
Seminar timetable	p.2
Abstracts (Oral presentations)	p.4
Abstracts (Poster presentations)	p.20
Excursion overview	p.30
Information for participants from Korea	p.34
Sponsors	p.37

Local Organizing Committee (LOC):

Prof. Takashi Tashiro (Nagoya Univ.): Secretary general, contact person at 応用生態名古屋

Prof. Morihiro Harada (Gifu Univ.): Excursion and transport

Prof. Ryota Tsubaki (Kobe Univ.): Contact person to Korean and Japanese

Prof. Yuta Mizoguchi (Nagoya Univ.): Contact person at ARRC

Host (Main/Joint):

応用生態名古屋

Ecology and Civil Engineering Nagoya

岐阜大学高等研究院環境社会共生体研究センター

Center for Environmental and Societal Sustainability (CENSS), Gifu University

Seminar overview

21st Japan-Korea Joint Seminar at the Tokai Region

Theme:

Restoring River Environments and Sustaining River Culture through Research and Practice
河川環境再生と川文化の継承：研究と実践

Date:

24 October (Fri.): Seminar at the Aqua Restoration Research Center (ARRC), Gifu (Whole day from morning).

25 October (Sat.): Excursion at the Nagara River (Whole day).

Outline:**Seminar (24 Oct)**

Venue: Aqua Restoration Training Center (水辺共生体験館), ARRC

Schedule:

08:45 – Charter bus departs from JR Gifu Station

09:30–09:55 – Reception at the venue

(Participant check-in and collection of participation fee)

10:00 – Seminar starts

12:20–14:00 – Lunch at the venue & poster presentation core time

15:30 – Seminar ends

Program Overview:

Oral presentations: 12 minutes including discussion × (6 Korean + 6 Japanese), both morning and afternoon sessions

Keynote lectures: Prof. Tsujimoto (Japan) and invited speaker(s) from the Korean side

Poster presentations: Approx. 5 from each country. A0-Vertical/Portrait size.

Post-seminar options:

Guided Tour of ARRC (15:30–17:30)

Includes facilities and exhibitions related to river restoration

- 17:30 – Charter bus departs for JR Gifu Station

Direct return after seminar

- 16:00 – Charter bus departs for Meitetsu Kasamatsu Station

Excursion (25 Oct)

09:00 – Depart from JR Gifu Station

Full-day visit to the Nagara River to explore its history, ecology, and cultural aspects

17:00 – Drop-off at JR Gifu Station

Seminar Timetable:

From	To	Abst. page	Event and presenter(s)	Title
10:00	10:05		Prof. Takashi TASHIRO	Announcement
10:05	10:10		Dr Keigo NAKAMURA (PWRI)	Welcome remarks
Oran session 1 (Chair: Yoichi KAWAGUCHI at Niigata University)				
10:10	10:22	4	Yuexia ZHOU and Yuji TODA	Estimation of the 3D Density of Riparian Tree Using 3D-Scan Point-Cloud Data
10:22	10:34	5	Gunwoo PARK and Daehyun KIM	Planform Dynamics Along an Entire River Course Following an Extreme Flood: a 'Segmented Continuity' Perspective from Southern Korea
10:34	10:46	6	Takashi TASHIRO, Ichiro TAYASU, Aimin HAO and Yasushi ISERI	Changes in Sedimentary Environments in Floodplains in Japan and China over the Past Several Decades and Their Controlling Factors
10:46	10:58	7	Eunkyoung JANG, Jaeho KIM, Un JI	Spatial and Temporal Integrated Assessment of Bed Morphological Changes in Stream-scale Vegetated Channel
10:58	11:10	9	Yasuhiro TAKEMON and Hironobu KANZAKI	A case study of tidal flat restoration by sediment replenishment in the river mouth of the Yodo River
(10min)			Break	
Oran session 2 (Chair: Daehyun Kim at Seoul National University)				
11:20	11:32	10	Giyong OCK and Seung-Soo CHUN	Tracing the Environmental History Recorded in the Sediments of the Intertidal Flats of the Geum River Estuary in South Korea
11:32	11:44	11	Hiroshi CHO, Minoru MIYAKE, Haruka IWATA and Md. Munsur RAHMAN	Technological Innovations in Indigenous Spur Dykes as Nature-Based Solutions for Alluvial River Management in South Asia
11:44	11:56	12	Myounghwan KIM	Application of Biopolymer-Mixed Soil to Levee Revetments
11:56	12:08	13	Yoichi KAWAGUCHI, Takahiro SATO, Hiromasa ONIKUBO, Yoshihisa AKAMATSU, Ryohei NAKAO, Ryoichi YAMANAKA, Sayaka MORI, Yasunori MUTO and Mahito KAMADA	Quantitative Environmental DNA Metabarcoding Reveals Fish Biodiversity Patterns in the Lower Reaches of Yoshinogawa River Basin in Tokushima
12:08	12:20	14	Sangjin HAN, Sung-Uk CHOI, Byungwoong CHOI and Jong-Min OH	Construction of Habitat Suitability Curves for Benthic Macroinvertebrates using the ANFIS method in the Geum-gang River Basin
Poster session (Chair: Ryota TSUBAKI at Kobe University) and lunch				
12:20	12:40		Poster short presentation (1-minute each)	
12:40	13:20		Lunch time & Poster preview	
13:20	14:00		Poster core time	

From	To	Abst. page	Event and presenter(s)	Title
Oral session 3 (Chair: Changlae Jang at Korea National University of Transportation) and closing				
14:00	14:20	15	Tetsuro TSUJIMOTO	Keynote: Fluvial Processes Supporting River-Ecosystem Integrity
14:20	14:40	16	Yugyeong OH and Leehyung KIM	Keynote: Impact of Emerging Pollutants on Aquatic Ecosystem Health and Management Strategies
14:40	14:52	17	Morihiro HARADA, Shigeya NAGAYAMA, Ryoji FUJII, and Masanao SUEYOSHI	Thermal Regimes in Nagara River System
14:52	15:04	19	Haeji SHIN and Eunsuk KIM	Habitat preference and competitive ability of <i>Humulus japonicus</i> , an aggressive weedy plant species in Korean riparian areas
15:04	15:30		Profs. TAKEMON and CHOI (tentative)	Discussion, closing remarks

Poster presentations (Poster core time 13:20 – 14:00)				
		20	Nonoka SAKAUE, Ryota TSUBAKI and SEFAT KARIMULLAH	Effects of Flushing Flows on Riverbed Changes during Natural Floods in the Satsunai River
		21	Seonggi AN, Yongmin KIM, Chanjoo LEE, Hun CHOI	Spatial Distribution and Quantitative Assessment of Woody Vegetation in Rivers
		23	Takashi TASHIRO, Kazumi KURATA and Masato YAMAZAKI	Survey of Attitudes toward Kasumi-tei, a Traditional Fragmentary Levee System in the Toyogawa River, Central Japan: Implications for Nature- and Culture-Based Solutions in Monsoon Floodplain Regions
		24	Hyunjin SEO, Goeun KIM, Giyoung OCK	Assessing Terrestrialization Risk in Protected Wetlands Using the JRC Global Surface Water Dataset
		25	Zong Woo GEEM	Music-Inspired Harmony Search Algorithm for River Optimization Problems
		26	Un JI, Yunchae PARK, Seonggi AN, Chanjoo LEE	Carbon Sequestration Potential of Willows in Climate-Adaptive Flood Mitigation Zones: Large-Scale Cultivation and Growth Monitoring in Korea
		28	Chang-Lae JANG	Laboratory analysis of channel development influenced by floodplain vegetation
		29	Jaeho KIM, Eunkyung JANG, Un JI	Grain-Size-Dependent Thresholds of Gravel Transport under Large-Scale Experimental Conditions

Post seminar schedule				
15:30	17:20		ARRC short guide tour	
16:00			Bus departure to Kasamatsu St.	
17:30			Bus departure to Gifu St.	

Excursion to the Nagara River: Overview and Highlights

During the excursion, participants will explore key locations in the mid-to-upper reaches of the Nagara River Basin, gaining insights into river culture and flood management. By visiting historical towns, traditional industries, and key water-related sites, participants will learn how local communities have coexisted with the river through ingenious water management systems and disaster prevention strategies. The tour will highlight how traditional river-based industries (such as washi-making and ayu fishing) and flood resilience measures have shaped life along the Nagara River.

This excursion offers a comprehensive understanding of the Nagara River's role in sustaining both natural ecosystems and human settlements, making it an invaluable experience for those interested in river conservation, cultural heritage, and water disaster prevention.

The Nagara River (長良川) is one of Japan's most scenic and culturally rich rivers, flowing approximately 166 km through Gifu Prefecture before joining the Kiso River and emptying into Ise Bay. Known for its pristine water quality, the Nagara River has been recognized as one of Japan's clearest rivers and plays a vital role in both the natural environment and cultural heritage of the region.

Time	Duration	Schedule & Description
09:00	0:15	Depart from JR Gifu Station (Group Bus Parking, north side of Juroku Plaza)
09:15	1:00	Stop near Nagara Bridge (in front of K Excellent Hotel). The bus will move ahead and wait at the Nagara River Ukai Museum parking area. Site 1: River culture and flood management systems in Gifu City, along the central reach of the Nagara River.
10:15	0:30	Depart from Nagara River Ukai Museum
10:45	0:30	Stop near the west end of Mino Bridge. The bus will move ahead and wait at the Michi-no-Eki Mino Niwaka Chaya parking area. ★Souvenir shops and local products are available Site 2: The traditional town of Mino — prosperity through washi paper and river transport, and present-day flood control challenges.
11:15	0:45	Depart from Michi-no-Eki Mino Niwaka Chaya
12:00	1:00	Arrive at Seiryu Nagara River Ayu Park. Lunch: Catered bento from “New Shiratori,” featuring a tasting set of wild and farmed ayu (sweetfish). Site 3: Comparing wild and cultured ayu of the Nagara River.
13:00	0:30	Depart from Seiryu Nagara River Ayu Park
13:30	2:00	Arrive at Gujo Hachiman (Jokamachi Plaza Parking). ★Shops offering local crafts and specialties are available. Site 4: Walking tour of Gujo Hachiman — “The Water Town,” where everyday life and culture are closely intertwined with pure spring water and the Nagara River system.
15:30	1:00	Depart from Gujo Hachiman (Jokamachi Plaza)
16:30	—	Arrive back at JR Gifu Station (Group Bus Parking, north side of Juroku Plaza)



Assembly Point: JR Gifu Station (Group Bus Parking, north side of Juroku Plaza)

1. Overview of the Nagara River Basin

Source: Mt. Dainichigatake (大日ヶ岳), located in the northern part of Gifu Prefecture.

Length: 166 km

Basin Area: 1,985 km²

Main Cities Along the River: Gujo, Seki, Gifu

Ecosystem: The river is home to diverse aquatic life, including ayu (sweetfish), which is central to the local fishing culture.

2. Key Attractions & Highlights for the Field Trip

(1) Nagara River Basin near Gifu City – The Cultural Center

What to See:

Cormorant Fishing (鵜飼, Ukai) on the Nagara River (A 1,300-year-old tradition).

Gifu Castle (Historical site offering a panoramic view of the Nagara River).

Nagara River Ukai Museum (Learn about the history of cormorant fishing).

Relevance to the River:

The Nagara River is famous for Ukai (Cormorant Fishing), a traditional method of fishing using trained cormorants to catch ayu. This technique has been preserved for over 1,300 years and is conducted under the patronage of the Japanese imperial family.



Nagara River and Gifu City

(Photo from: <https://www.city.gifu.lg.jp/kankoubunka/bunkazai/1026875/1005555.html>)

Towns Along the River: Living "Inside the River"

These towns along the Nagara River are actually located within the river's levee system, meaning they exist inside the river rather than beside it. These towns have ingenious flood management designs that allow them to coexist with the river while minimizing damage during floods.

The riverside streets and buildings are strategically built to withstand periodic floods, ensuring safety even during major floods that occur every few decades.

(2) Mino City (美濃市) – The Home of Traditional Japanese Paper (Washi)

What to See:

Udatsu Street (うだつの上がる町並み) – A beautifully preserved Edo-period townscape.

Mino Washi Museum – Showcasing the 1,300-year-old tradition of handmade Japanese paper.

Mino Washi Akari Art Exhibition – A unique display of washi-based light art.

Relevance to the River:

The clean, mineral-rich water of the Nagara River is essential for washi paper production, a tradition dating back over a millennium.

Mino Washi has been recognized as an Intangible Cultural Heritage by UNESCO.

Note: Due to the scheduling of the excursion, the visit to Mino will be limited to the riverside area along the Nagara River. There will be no time for walking through the historical town district.

(3) Gujo Hachiman (郡上八幡) – Headwaters Region

What to See:

Gujo Hachiman Castle (one of Japan's most beautiful mountain castles).

Clear spring water and small canals run through the historic town.

The Gujo Odori dance festival (one of Japan's longest Bon dances).

Relevance to the River:

The area is known for its water conservation efforts, ensuring the cleanliness of the Nagara River.

Visitors can learn about the local water culture, including traditional washing and irrigation systems.



Yoshida River in Gujo-Hachiman

(Photo from: <https://www.gujo-fc.or.jp/news/20240601-01/>)

3. The Cultural and Ecological Significance of the Nagara River

(1) Ayu (Sweetfish) and Traditional Fishing Methods

The Nagara River is one of Japan's best rivers for ayu fishing, and the fish is a key part of the region's cuisine.

Cormorant Fishing (Ukai): Fishermen use trained cormorants to catch ayu under torchlight, a tradition preserved for over 1,300 years.

(2) Living with the River

The Nagara River has shaped local industries, including Mino's washi paper and Gujo's water management traditions.

The people of the river basin have maintained sustainable water management practices, ensuring the river's clarity and biodiversity.

Recommended plan for participants coming from Korea:

We recommend that participants stay at a hotel near JR Gifu Station on the night before the seminar, and gather at JR Gifu Station on the morning of the event.

For those attending both the seminar and the excursion, it is convenient to stay near Gifu Station for three nights: the night before the seminar (23 October), the seminar day (24 October), and the excursion day (25 October).

(JR Gifu Station and Meitetsu Gifu Station are about a 5-minute walk apart.)

Charter bus:

On 24 October, a microbus will pick you up at one of the following locations:

08:45 – Tourist bus parking area at JR Gifu Station

09:15 – Rotary in front of Meitetsu Kasamatsu Station

Tourist bus parking area at JR Gifu Station:

<https://maps.app.goo.gl/FcksjMYi9Q7sVTos8>

Rotary in front of Meitetsu Kasamatsu Station

<https://maps.app.goo.gl/CCUjBSEDzeWqMh7Q7>

After the seminar, a chartered bus will be provided to Meitetsu Kasamatsu Station or JR Gifu Station.

If you plan to go directly to Chubu Centrair International Airport after the seminar, please note: Arrival at the airport will be around 18:00 if traveling via Meitetsu Kasamatsu Station after the seminar. From Meitetsu Kasamatsu Station, there are direct trains to the airport at 16:37 and 17:07.

Transportation for Gifu or Kasamatsu Station:

1. From Chubu Centrair International Airport (NGO) to Meitetsu Gifu Station

Route: Meitetsu Airport Line → Meitetsu Nagoya Main Line → Meitetsu Gifu Station

Duration: Approx. 55–60 min (μSky Limited Express, direct)

Fare: 1,270 JPY (regular) / 1,870 JPY (reserved seat μSky)

2. From JR Nagoya Station to JR Gifu Station

Route: JR Tokaido Main Line (local or rapid)

Duration: Approx. 20 min

Fare: 480 JPY

3. From Meitetsu Nagoya Station to Meitetsu Kasamatsu Station

(For participants going directly to Kasamatsu Station on the seminar day)

Route: Meitetsu Nagoya Main Line → Meitetsu Kasamatsu Station

Duration: Approx. 25 min (express)

Fare: 450 JPY

4. From JR Nagoya Station to Meitetsu Kasamatsu Station (via JR Ichinomiya)

(For participants going directly to Kasamatsu Station on the seminar day)
Route: JR Tokaido Main Line from JR Nagoya Station → JR Ichinomiya Station → transfer to Meitetsu Ichinomiya Station → Meitetsu Nagoya Main Line → Meitetsu Kasamatsu Station
Duration: Approx. 40–45 min total
Fare: JR segment ~330 JPY + Meitetsu segment ~380 JPY

5. From Meitetsu Gifu Station to Meitetsu Kasamatsu Station

Route: Meitetsu Nagoya Main Line (southbound)
Duration: Approx. 7 min (express) / 10 min (local)
Fare: 230 JPY

Accommodation Options Near JR Gifu Station & Meitetsu Gifu Station

For travelers looking for convenient accommodation near JR Gifu Station and Meitetsu Gifu Station, there are various hotels that cater to different budgets and preferences. Below are some recommended options:

Hotel Resol Gifu

Location: 3-minute walk from JR Gifu Station / 5-minute walk from Meitetsu Gifu Station
Features: Comfortable Western-style rooms, on-site restaurant, convenient for both business and tourism
Price Range: Approx. 7,000–12,000 JPY per night

Daiwa Roynet Hotel Gifu

Location: 5-minute walk from JR Gifu Station / 7-minute walk from Meitetsu Gifu Station
Features: Spacious rooms, high-speed Wi-Fi, good for long stays
Price Range: Approx. 8,000–14,000 JPY per night

Comfort Hotel Gifu

Location: Right next to JR Gifu Station
Features: Budget-friendly, free breakfast, and convenient access to public transport
Price Range: Approx. 6,000–10,000 JPY per night

Hotel II Credo Gifu

Location: 2-minute walk from JR Gifu Station / 4-minute walk from Meitetsu Gifu Station
Features: Modern design, affordable rates, and good accessibility
Price Range: Approx. 6,000–9,000 JPY per night

Toyoko Inn Gifu

Location: 5-minute walk from JR Gifu Station
Features: Basic and clean rooms, free breakfast, good for short stays
Price Range: Approx. 5,000–8,000 JPY per night

AB Hotel Gifu

Location: 5-minute walk from JR Gifu Station
Features: Free breakfast, reasonable rates, and a public bath available
Price Range: Approx. 5,000–9,000 JPY per night
Hotel Livemax Gifu-Ekimae

Location: 3-minute walk from JR Gifu Station

Features: Affordable, convenient for solo travelers, simple but clean rooms

Price Range: Approx. 4,500–7,000 JPY per night



Hotel Map around JR Gifu Station and Meitetsu Gifu Station

Sponsors:




Producing The Future

未来をプロデュースする

世界中の誰かが脅かされない、格差がない豊かな暮らしを、実現すること。
すべての生命の源である美しい地球、その環境を守り、未来へ引き継ぐこと。

私たちは、この2つの両立を使命として、持続可能な社会をつくります。
そのために、時代とともに変化する社会課題と未来の社会課題を見つけ出し、
インフラエンジニアリングを核とした先進的なサービスによって解決します。
新たな価値や変革をもたらすために、私たちの挑戦は続きます。



www.pacific.co.jp

パシフィックコンサルタンツ株式会社 〒101-8462 東京都千代田区神田錦町三丁目22番地

社会基盤の形成と環境保全の 総合コンサルタント

当社は、社会基盤整備や環境保全にかかわる企画、調査、分析、
予測評価から計画・設計、維持管理に至る、すべての段階において、
一貫した付加価値の高いサービスを提供しております。



人と地球の未来のために——



いであ株式会社

いであWebサイト 

代表取締役会長 **田畑 日出男**
代表取締役社長 **田畑 彰久**

- ▶ 河川・道路・橋梁の計画・設計・管理
- ▶ 港湾・空港・海岸の計画・設計・管理
- ▶ 災害に係る調査、災害復旧の計画・設計
- ▶ 生物生息環境の保全・再生・創造
- ▶ 自然環境の調査・解析
- ▶ 環境計画（環境保全対策、環境創造、
自然再生事業、環境管理計画）



いであ ライフケア・サービス
**Webショップ
オープン!**

「お部屋の健康診断」
という
新習慣。



NEW

DNA測定による室内リスク評価

「お部屋の健康診断」
してみませんか?

お申込みは、お電話・Webページから
<https://lifecare.ideacon.co.jp/>



Life Care Service
いであ ライフケア サービス

NIPPON KOEI URBAN SPACE



日本工営都市空間株式会社

本 社 名古屋市東区東桜二丁目17番14号

Tel: 052-979-9111

東京本社 東京都千代田区麹町四丁目2番地

Tel: 03-3514-6600

支 店 仙台・静岡・大阪・九州・沖縄

U R L <https://www.n-koei.co.jp/urbanspace/>





未来につづく
安全・安心を

安全・安心への、たゆまぬ挑戦



株式会社 建設技術研究所 〒103-8430 東京都中央区日本橋浜町3-21-1 (日本橋浜町Fタワー) TEL.03-3668-0451 <https://www.ctie.co.jp>

“環境”にもっとも必要とされる企業へ

豊富な経験と最新の技術を活かした
未来につながる優れた社会資本の整備 それが私たちの使命です。



絶滅の恐れのある生物の保全



クマタカに関する保全措置



環境DNA分析



水質悪化の調査・分析・改善策の検討



地域の環境保全活動への協力



寛川流域エコネット地域づくりアクションプラン
～自然と治水が調和した地域づくりのための行動計画～
この計画は、地域の自然環境を保全し、治水機能を高めることを目的としています。



屋外電子野標 Wild-K

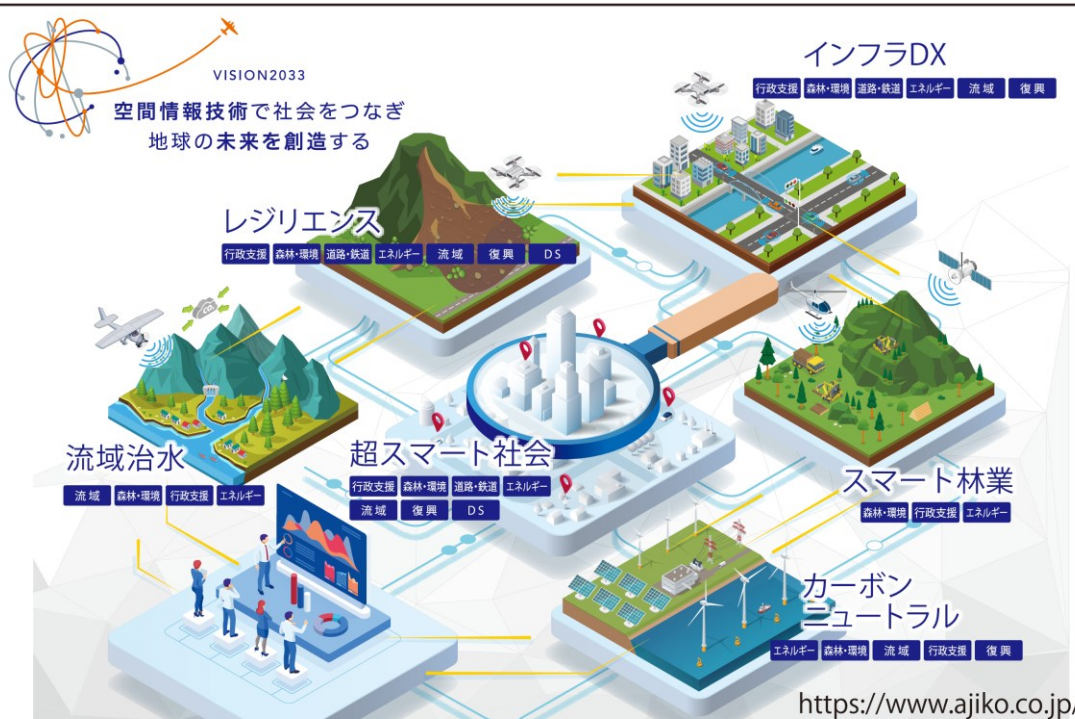


再生可能エネルギー・景観作成簡易VR



建設環境研究所
KenKan Consultants Co.,Ltd.

本社 〒170-0013 東京都豊島区東池袋2-23-2 tel.03-3988-1818
中部支社 〒460-0003 愛知県名古屋市中区錦3-20-27 御幸ビル5階
tel.052-218-0666 fax.052-218-0667



<https://www.ajiko.co.jp/>



アジア航測株式会社

新百合本社: 神奈川県川崎市麻生区万福寺1-2-2 新百合トウェンティワン
名古屋支店: 愛知県名古屋市中区大曽根3-15-58 大曽根フロントビル